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ISSUED IN MONTHLY PARTS.

A DIGEST OF CURRENT MEDICAL LITERATURE, ABSTRACTS AND REVIEWS,—IN THREE PARTS: MEDICINE, SURGERY, DISEASES OF WOMEN AND CHILDREN, AND OBSTETRICS.

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THE AMERICAN MEDICAL DIGEST.

PART I.

MEDICINE.

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MEDICINE.

CONSTITUTIONAL DISEASES.

Management of Typhoid Fever.

DR. F. PEYRE PORCHER (*New Orleans Medical and Surgical Journal*):

In addition to the keeping up of the nutrition of the patient by suitable food, and supporting by stimulants, he regards it as a matter of great importance to control the temperature, which he does by the following means:

1. A soft towel folded is soaked in a basin of iced water, then wrung out and applied over the forehead and temples.

2. The palm of one hand and the arm are "sponged off" with another towel which has been dipped in the cold water and wrung out.

3. The towel which has been left upon the head is turned and reapplied, so as to have the cold surface next the skin.

4. The other hand and arm are treated as was the first.

This process, strictly followed, is continued for fifteen to thirty minutes, or until such time as the surfaces treated have become thoroughly cooled, and should be repeated whenever there is a rise of the surface heat. Sometimes, if it does not cause fatigue, both hands and arms, if hot and dry, are allowed to be immersed or to be bathed directly in the cold water.

This mode of using cold water he has found efficient and valuable in the treatment of various forms of fever, in which the hyperpyrexia was of such a degree as to be regarded an element of danger.

The next most important auxiliary, and one that he regards as essential in every form of fever, is what he calls the "fever mixture," which is composed as follows, though the different ingredients may be varied to suit the case: ℞. Spts. etheris nitrosi, ℥ ss; potass. acetatis, ʒ i–ij; potass. chloratis, ʒ j; liq. ammon. acetatis, ℥ j; tr. aconiti, ʒ ss; tr. opii camph, ʒ ij–iij; aquæ, q. s. ad. ℥ iv. M. Sig. Dessertspoonful every two or three hours as long as there is fever.

Potassium bromide or morphia may be added if there is great restlessness and insomnia.

Following the recommendation and experience of Dr. L. Kestiven, of Queensland, as recorded in the *Practitioner*, he has, in his latest cases, given the following formula in alternation

with the "fever mixture" already given. ℞. Olei eucalypti, ℥ v ; spts. ammon. arom. ; spts. chloroformi ; glycerini, āā ℥ ij. M. Sig. Teaspoonful of quinine every four hours.

Dr. Porcher generally gives tonic doses of quinine (two grains three times a day). This has also an antiseptic influence, he thinks. The quinine was generally associated, after the first week, with aromatic sulphuric or nitro-hydrochloric acid in ten-drop doses, in view of the special applicability of acids in this disease when it has made some progress.

In the later stages, characterized by dry tongue and sordes, with low muttering delirium, he says that stimulants should be administered very freely, together with the application of revulsives (emplastrum cantharidis) to the back of the neck, where cerebral complications, delirium, etc., are marked. As long as the tongue is dry he would give almost unlimited discretionary powers to attendants and nurses to continue stimulants. He thinks this positive indication has been too little regarded.

He further refers to some remedial agents which are valuable in the complications which arise in this disease.

Oil of turpentine is applicable to meet four separate morbid conditions.

1. Tympanitic distention resulting from perverted conditions of the mucous and secretory surfaces of the intestinal tract.

2. As a special stimulant at the stage of general depression.

3. As an astringent or styptic, with opium, to prevent or arrest hemorrhages from the intestines, kidneys or bladder.

4. Combined by means of mucilage with the carbonate and chloride of ammonium, to relieve the irritation or inflammation of the bronchial tubes, when these are affected.

When the later stage of the disease is complicated with severe broncho-pneumonia, the following formula has given him satisfactory results : ℞. Vin. ipecac, ℥ j ; ammonii carb., ℥ ij; ammonii chloridi, ℥ iij ; syr. simplicis, ℥ j ; aquæ, q. s. ad., ℥ vj. M. Sig. Dessertspoonful every two hours in a wineglassful of water.

Cotton batting over the whole chest, covered with an oil silk jacket, he has found most valuable additional means in treating broncho-pneumonia.

For the albuminuria which sometimes occurs, he gives three times a day two grains each of gallic acid and quinine.

For nausea and vomiting he finds most efficient drop doses of wine of ipecac, frequently repeated, or the following : ℞. Acidi carbolici, gtt. j ; glycerinæ, ℥ j ; tr. opii camph.; ess. menth. pip. ; chloroformi pur., āā. gtt.v. M. Sig. In mucilag. acaciæ q. s. and repeat.

Dr. Porcher claims that under this plan of treatment, which he has pursued for a number of years, the mortality from typhoid fever in his clientele, has been only two to three per cent., a record which is certainly a most emphatic endorsement of his treatment.

Cardiac Changes in Typhoid Fever.

A very unusual lesion has recently been pointed out by Dégérine as occurring in the muscular structure of the heart during the course of typhoid fever. On examining the hearts of two patients who died suddenly during apparent convalescence from this disease, extensive microscopic changes were detected into the myocardium. In both cases, the lesion consisted in a separation of the intercellular cement of Eberth, which, in a normal condition, unites the cells of the cardiac fibres. There was neither fatty, putrid nor pigmentary degeneration. It is due to the solvent action

of sarcolatic acid, which is formed in great abundance in the intercellular cement. No bacilli were found in the myocardium. Similar changes have been detected in the myocardium after pericarditis by Lundrouzy and Renant.

Quinine Eruptions.

P. LAVASSAR (*Thèse de Paris; Journal Cutaneous and Venereal Diseases*) :

1. Quinine employed internally can, at times, produce eruptions.

2. These eruptions take on a multiplicity of forms, of which one, the scarlatiniform, is of peculiar interest. These eruptions appear suddenly, become general with great rapidity, and are most frequently fugacious.

3. They may, in certain cases, be preceded by general phenomena of marked intensity.

4. They recur with the greatest facility under the influence of a renewed dose of the medicine.

5. The diagnosis may be obscured by the striking similarity of the scarlatiniform exanthem to that of certain eruptive fevers ; and to remove all doubt, you must, above all, take into consideration the fact of the recurrence.

6. The eruptions are extremely benign, and disappear generally in a day, exceptionally remaining several days.

7. They can be explained either by the elimination of the quinine through the sudoriparous glands, or by especial action which this drug has upon the circulation of the skin through the nervous system, and especially the vaso-motor nerves.

Diphtheria.

The following are series of the prescriptions given in the *Medical World* recently :—

℞. Potass. chlorat., gr. v ; tinct. ferri perchlor., ♏ v ; aq. dest. et syrupi, ad. f. ʒ ij. M. S.—Every two or three hours.

℞. Acidi sulphurosi, ʒ vj ; glycerini, ℥ jv ; sol. potass. chlorat. (saturated), ad ℥ viij. M. S.—Teaspoonful every hour.

℞. Quiniæ sulphat. gr. ½ ; tinct. ferri perchlor, ♏ iij ; potass. chlorat., gr. iij ; aq. et syrupi, ad. ʒ j. M. S.—Every two hours.

℞. Acidi salicylici, ℥ ss : glycerini, ℥ ij ; aq. calcis, ad. ℥ viij. M. S.—Use spray.

Glycerite of borax, as local application :

℞. Quiniæ sulphat, gr. x ; acid. hydrochlorici, dil. q. s ; glycerini et aquæ, āā, ad. ℥ j. M. S.—As spray.

℞. Sodæ bicarbonatis, ℈ j ; aq. calcis, ℥ j. M. S.—As local application.

Pepsin dissolved in glycerine locally.

℞. Quiniæ sulphat, gr. xij ; potass. chlorat., gr. l ; tinct. ferri perchlor., ʒ j ; syr. zingiberis, ℥ j ; aq. dest., ad. ℥ iij. M. S.—One teaspoonful, in water, every two hours, for a child.

℞. Liq. strychniæ, P. B. ʒ ss ; liq. ferri perchloridi, ʒ jss ; aq. dest., ad. f. ʒ viij. M. S.—One-sixth part three times a day, during convalescence.

℞. Acidi borici, ʒ j ; tinct. ferri perchloridi, ʒ ij ; potass. chlorat., ʒ ij ; aq. et glycerini, āā, ℥ jss. M. S.—A teaspoonful every four hours for a child.

℞. Acidi carbolici, ♏ viij ; liq. ferri subsulphat, ʒ ij ; glycerini, ℥ j. M. S.—To be applied locally, two or three times a day.

Observations Concerning Diphtheria.

SIGEL (*Jahrb. f. Kinderh. from Arch. f. Kinderh.*) :

Especial attention is directed in this paper to the treatment of diphtheria with oil of turpentine. It contains an

account of 87 cases, of which 20 were fatal. Nineteen of the entire number treated were tracheotomized with a fatal result of them.

As to the treatment, 16 received chlorate of potash, salicylic acid, and the like, 6 of them died. Twenty-four were treated with sublimate, with 6 deaths. Forty-seven received oil of turpentine, with 7 deaths. Thus the percentage mortality under the turpentine treatment was 14.9, and under other methods 32.5.

The purified oil of turpentine was used, being administered with Malaga wine and egg albumen, or with powdered sugar and cognac, in doses of a coffee spoonful once or twice a day. It was usually taken without repugnance by the children, and if vomited the first time there was not often any trouble subsequently. In those cases in which the stomach refuses to retain it, it may be given per rectum.

The dose which was mentioned will usually suffice. In cases of relapse, however, the author thinks it is well to increase the quantity, and in all his cases he saw no bad effects upon the kidneys or other organs, whatever the dosage. Twenty-two of the cases were severe and 25 mild. In the former the turpentine succeeded in 10 cases in reducing the febrile temperature, in the remaining 12 the effect was upon the local morbid process. In the latter the effect upon the latter condition was prompt and decided in all but three cases. In 14 of the cases the condition was such that tracheotomy was almost imperative when the use of turpentine was commenced, and in all of them that operation was rendered unnecessary.

The author does not entirely agree with Unruh in his statement that children with tuberculosis are especially predisposed to diphtheria, but he has observed that children who are anemic from disordered nutrition, scrofulous and rachitic, show a decided tendency or susceptibility to this disease, especially if hypertrophy of the tonsil is associated with the other condition. The opinon is advanced that true diphtheria can occur in the same individual only once. As a means of prophylaxis isolation of the sick in the hospital is advised; and for their treatment is recommended an abundance of suitable food, including wine, fresh air, cleanliness of body and surroundings, moderately cool baths if fever is present, avoidance of all local treatment, and the use of turpentine.—*Archives of Pediatrics.*

"Hot Eye" in Association with Gout.

MR. JONATHAN HUTCHINSON, in a note on this subject, says: The following item of evidence is, I think, valuable in reference to the connection of certain diseases of the eye with gout. A gentleman, named W., consulted me on account of attacks of irritability, first of one eye and then of the other. The eye would become a little red, and feel as if he had sand in it. The attacks would usually last from two to four days, but they recurred very frequently, and were a source of much annoyance. He had made his own diagnosis before coming to me, and remarked, "I never knew what they meant until, a year ago, I had an attack of gout in the great toe." He was of dark complexion. He had, of late, been very careful in his habits, but he inherited gout strongly on both sides. Having noticed the identity of names, I asked him if he was a relative of a certain Dr. W. "Yes," he said, "I am his first cousin, and there is the same inheritance in both of us." In the latter case the patient, then a young man, lost one eye from recurrent attacks of iritis, and had much damage to the other. His

case is given in the series which I have published, illustrating the peculiar form of destructive iritis which goes with hereditary gout. Thus the two cases support each other, and afford strong evidence: firstly, as to the connection, with inheritance of gout tendencies, of the destructive form of iritis; and, secondly, with personal proclivity to gout of the "hot eye."—*British Med. Jour.—Jour. Amer. Med. Assoc.*

Solanine.

Dr. D. J. Leech contributes to the November number of the *Medical Chronicle* the following summary of an article by M. A. Geneuil, published in the *Bulletin Général de Thérapeutique.* Dr. Geneuil gives a systematic account of the physiological action and therapeutic uses of solanine, an alkaloid which has been found in the leaves, berries and twigs of the woody nightshade (*Solanum dulcamara*), in the berries of the garden nightshade (*S. nigrum*), in the potato, and in many other plants belonging to the *Solanaceæ.* The composition of the alkaloid is not exactly determined. It may be prepared from the young sprouts of the potato. The crystals which it forms, when carefully prepared, are insoluble in water, slightly soluble in ether, more so in alcohol; they cause a burning sensation in the mouth. By prolonged contact with acids solanine is decomposed into glucose and solanidine, but salts of the alkaloid can be formed with acids, and these salts are very soluble in water.

According to Dr. Geneuil, solanine may influence the brain, and cause vertigo, heaviness in the head, singing in the ears, and even sleep; in toxic doses, violent cephalalgia and delirium. But the special influence of the drug, he says, is on the medulla, spinal cord, and nerves. It induces anæsthesia of the terminal extremities of the sensory nerves, and also paralyzes the motor nerves, but the explanation given of its influence on the motor system is, to say the least of it, confusing, for we are told that it causes paralysis of the medulla and cord—"et comme conséquence, paralysie des extrémités terminales des nerfs moteurs." The sequence is not quite clear. We are told, moreover, that in still larger doses the excito-motor power of the cord is exalted, and convulsions and tetanic spasms occur.

Solanine causes anæsthesia of the terminal extremities of the pulmonary plexus, and thus diminishes the sensibility of the bronchial mucous membrane. It depresses the respiratory centre in the medulla, and hence slows the breathing. The pulse is sometimes at first decreased in frequency; afterward the heart beats more frequently, owing to paresis of the vagus ends in the heart. On the digestive organs solanine acts as an irritant, producing loss of appetite and a tendency to nausea, or even vomiting, but eventually it paralyzes the terminal branches of the pneumogastric in the stomach. In small doses it has a laxative effect, produced, according to Dr. Geneuil, by an influence on the sympathetic similar to that of atropine; a desire to evacuate the bowels without the power of doing so is not infrequent after solanine. Large doses produce vomiting, colic and constipation.

It does not affect the urine, nor the skin secretions, unless in toxic doses; it does not produce anæsthesia when applied locally. Although the pupils of children poisoned by the garden nightshade have been found dilated, no effect on the pupil has been observed after solanine. Generally speaking (according to Dr. Geneuil), the physiological action of solanine resembles

that of atropine, and he has found it of service in the relief of pain in many ailments. He administers 3-4 to 4 1-2 grains daily, divided into three doses; sometimes as much as 7½ grs. in twenty-four hours. Sometimes he gives it subcutaneously, injecting a solution of 1-6 to 3-4 grain of the chlorohydrate of solanine dissolved in water two to four times daily. It may be also absorbed by the skin if the epidermis be removed by a blister.

Dr. Geneuil records several cases of long standing sciatica cured by solanine given as above described. In one case the subcutaneous injection succeeded after the internal administration had failed. In neuralgias of various parts of the body the alkaloid proved very efficacious in relieving pain.

A severe prurigo was cured in three days by taking in divided doses three grains of solanine the first day, nearly four grains the second, and four and a half the third; in two milder cases the itching was removed by smaller doses.

In one case the drug relieved the pain consequent on cystitis, and it was given with advantage in rheumatic, gouty, and other painful ailments.

Dr. Geneuil strongly recommends solanine for the relief of stomach pains, whether dyspeptic or cancerous. Small doses (¼ to ½ grain) should be given half an hour before eating, or the same amount of the hydrochlorate may be given subcutaneously. In asthma, cardiac asthma, and bronchitis he has found it give relief, and he suggests its use in whooping cough, and wherever analgesics are needed to combat spasm or pain. In a few cases vertigo, singing in the ear, or diarrhœa followed the use of solanine, but, according to Dr. Geneuil, it is not a dangerous drug like morphine or atropine. Subcutaneous injections do not give rise to inflammation.

[Very diverse opinions have been expressed with regard to the action of solanine and the plants which contain it. Dr. Garrod found no result from the exhibition of sixty ounces of concentrated infusion of the dulcamara and half a pound of the fruit. It is known that this plant contains very little of the alkaloid; which is, perhaps, sometimes entirely absent. Some have found that solanine produces sleep, others have noted no soporific effect; dilatation of the pupil has been noticed and albuminuria has been said to follow its use. Possibly, exactly the same alkaloid has not always been employed. If Dr. Geneuil's views are confirmed by subsequent observers, we have in solanine a valuable addition to therapeutic agents. It is at present an expensive drug. Merck charges 9*s*. a dram for it.]—*New York Medical Journal.*

Broadbent on the Remote Effects of Remedies.

After referring to the well known after effects of alcohol, he alluded to the mental and bodily derangement induced by eating opium, the miserable irresolution and wretchedness of the man who habitually resorts to chloral, and the childish dementia brought on by the prolonged use of the bromides. He thought the coca is already beginning to claim its victims, who gradually develop an excitement which becomes maniacal, or an exaltation like that of general paralysis. The subject of gout was given as illustrating the remote effect of remedies. The effect produced by continued and excessive use of colchicum and other drugs having a similar action, and the consequences following the neglect of such treatment which will clear the system of the gout poison, were especially drawn attention to. With reference to the latter he

urged: "It can scarcely be too often repeated that all the effects upon the arteries upon the one hand and the heart upon the other, associated with contracted granular kidney—viz., arterial degeneration, cerebral hemorrhage, aneurism and dilatation of the left ventricle, and valvular disease—are just as commonly produced independently of kidney disease by high pressure in the arterial system due to these causes; and such pressure in an extreme degree may be induced prematurely by the means taken to keep down gout." Another cause of injuriously high arterial tension was the "Banting" treatment of obesity as understood by the public. In this the non-nitrogenous sugars and starches were taken very sparingly; the amount of fluid taken into the system reduced as much as possible, and the subject lived on a highly nitrogenous diet. The imperfectly oxidized nitrogenized waste present in the blood provoked resistance in the capillaries, and generated tension in the arteries. Exercise and an adequate supply of water, which were generally omitted, were essential to active metabolism and the working off of impurities. Another example of injury given was that furnished in asthma. Certain drugs afford alleviation of symptoms, but many popular powders contain powerful alkaloids, which produce after effects on the nervous and vascular systems. "When we see the stupified mental condition and the congested face and eyes, and note the large, weak, sluggish pulse, showing paralysis of the arterial walls, it is clear that such effects cannot be indefinitely repeated with impunity." "The right ventricle loses its tone like the muscular coats of the arteries, and, instead of becoming hypertrophied, yields to the resistance in the pulmonary circulation, and is dilated, finally giving rise to systemic venous stasis and dropsy." A striking illustration of his subject was given by the too careful and restricted diet of certain forms of so-called indigestion. One kind of food after another was left off, but still with the same discomfort and a sense of repletion after food. The appetite being wanting, a starvation point becomes almost reached. Instances of severe neuralgia, spurious attacks of angina pectoris, and serious debility were related as having followed this line of treatment. Again, in the winter indigestion of women and weakly men, the functional energy of the stomach required stimulating by extra food, such as beef tea, egg-flip, stimulants at meals, and tonics. What was wanted in winter indigestion was protection from the depressing influence of cold or the means of neutralizing it.—*Lancet.*—*Analectic.*

The Direct Action of Calcium, Sodium, Potassium and Ammonium Salts on the Blood-Vessels.

Dr. H. G. Beyer has been investigating the action of the above salts on the blood-vessels, and publishes his experiments in the *Medical News.* He formulates his conclusions as follows:

1. Calcium salts cause the vessels to contract by virtue of their stimulating influence on the vaso-motor ganglia.

2. Sodium and ammonium salts excite, first, the ganglia of the vaso-dilators, next those of the vaso-motors; hence producing at first dilatation and afterwards contraction of the vessels.

3. Potassium salts stimulate the ganglia of the vaso-dilators only, and consequently produce dilatation. If, however, as was shown in two observations, the dilatation which they produce is followed by contraction, this contraction is so extremely slight that it

may practically be neglected. Therefore any stimulating influence on the vaso-motor ganglia which they might possess is insignificant when compared with that which they exert over the vaso-dilators.—*Therapeutic Gazette.*

Snake Poison as a Preventive of Rabies.

Dr. Fernandez, of Barcelona (*Semaine Méd.; Dtsch. Med. Ztg*), having observed that dogs which had been bitten by snakes, and afterwards by rabid animals, never fell victims to rabies, has begun a series of experiments by inoculating dogs with viper poison in small quantities. The animal becomes feverish, dull, and more or less somnolent, but regain their usual health in four or five days. They are then inoculated with the saliva of a rabid dog, or caused to be bitten by one. The experiments are still in progress.—*N. Y. Medical Journal.*

The Operative Treatment of Pleuritic Exudations.

Frantzel (Proc. of the Fifth Congress for Internal Medicine, held at Wiesbaden ; Supplement to *Ctrlbl. für klin Med.*) lays down certain rules to be followed in tapping fibro-serous exudations. These, in the main, do not differ from the usual rules. Any vital indication, sufficient effusion to cause dyspnœa, or absolute dullness of the whole front part of the chest, even without dispnœa, calls for the operation. If the displacement of the neighboring organs is not extreme, and the amount of fluid only moderate, one may wait until the inflammation has reached its height. Then one does not operate, as a rule, before the expiration of three weeks. The punctures should be made on the right side, between the mammary and anterior axillary lines, at the upper edge of the sixth rib ; on the left side, between the same lines, but at the upper border of the fifth rib. It is not advisable to puncture deep in the back. No more than 1,500 c. cm. (52 ounces) should be removed at a time. Diagnostic aspirations with a hypodermic syringe are necessary only to over timid physicians. Attacks of syncope, even at times cases of inexplicable death, occur during the operation, but the author has never had any of the latter in his experience. By aspirating slowly (1,500 c. cm. require at least half an hour) troubleseme fits of coughing and œdema of the compressed lung are avoided, but not hemorrhage, which may even be fatal. Fortunately, the latter is a very rare event. After aspirating, it is well to put the patient to bed, keep him on a spare diet, and apply an ice bag to the site of puncture. After two or three days, if the fluid does not rapidly reaccumulate, a moderately rapid absorption, attended with considerable diuresis, takes place. Light counter-irritation (iodine applications), and cinchona and acetate of potassium internally, favor absorption. In copious effusions repeated aspirations are necessary. If after the operation an increase of the effusion is attended with high fever, the pleurisy is either carcinomatous, tubercular, etc., or the exudation has become hemorrhagic, purulent, or even putrid. The diagnosis of purulent or putrid exudations rests on high fever, which in two to four weeks takes on a hectic character, pain on pressure, spontaneous pain, and œdema of the affected side. Here operate at once. If the effusion is purulent only, not putrid, it is well, before resorting to the radical operation, to try aspiration, repeated two or three times. In carrying out the radical operation, Fräntzel recommends making a pretty wide opening into the pleural cavity, which must be

done under strict antiseptic precautions. Behind, the opening should be in the ninth or tenth intercostal space, and in front, in the fourth intercostal, external to the mammary line. A large drainage tube should be passed through the wound from before backward. In most cases the ribs require to be resected. After the operation the pleural cavity should be washed out with a chloride of sodium solution until the fluid that comes away is quite clear; then the usual antiseptic dressing is employed. Over the dressing, on the site of the wound, an ice bag is to be applied twice daily; the patient must be kept perfectly quiet, and given a light meat diet with a moderate amount of wine. The dressing should be renewed every twenty-four hours, and the cavity washed out with disinfectants. If, in spite of all the foregoing, the patient continues feverish, the contents of the pleural cavity grow more putrid, and the appearance of the wound is unhealthy, it is almost certain that there is a tubercular affection. Fräntzel has never had good results from the radical operation in cases of tubercle, and contents himself, in the presence of that complication, with simply aspirating or puncturing. The exudation becomes putrid either from the entrance of air into the pleural cavity, or from the entrance of germs in some other way—for example, from circumscribed gangrene of the lung, which is not infrequent. As soon as a diagnosis of a putrid exudation is made, the radical operation must be performed. In pyopneumothorax and pneumothorax the method of operating is precisely the same as in simple empyema. The radical operation, then, is excluded where cancer or tubercle is the cause of the pleuritic effusion. Weber, of Halle, for the most part agrees with Fräntzel, but operates much earlier, so as to avoid long standing compression of the lung and the formation of fibrinous bands, both of which are the causes of many sequelæ. Recently he has aspirated as early as the sixth or eighth day, but most frequently not before the fourteenth day, and has had most favorable results. He prefers an instrument of his own to that in common use. It acts on the principle of the siphon, and care is taken that the air is thoroughly excluded. He allows as much fluid to come away as will. A little blood discoloring the fluid is occasionally seen, but it is of little or no significance. It is only when the effusion is decidedly bloody that the suspicion of a grave disease may be entertained.

Fiedler, of Dresden, has performed thoracentesis over three hundred times. He condemns aspirators because one can not estimate what force is being used to withdraw the fluid. Any instrument acting on the principle of a siphon, and which does not allow the entrance of air into the pleural cavity, is preferable.

Litten, of Berlin, favors tapping early, and does not consider fever a contra-indication, but, on the contrary, says the fever falls after the operation. In favorable circumstances the lung will re-expand after a compression of eight to twelve weeks. He has seen, in patients who were previously quite healthy, acute miliary tubercle follow the absorption of a large plueritic effusion.

Jürgensen, of Tübingen, considers as of very little account the wounding of the lung with a slender cannula. He has often done it without ill results, and once had the occasion to examine a lung that had been so pierced, twenty-four hours afterward, and found only a spot of hemorrhage of about the size of a pea, without a trace of inflammation.

Fräntzel, in replying, says he has never tapped as early as Weber, but

that in the future he will give early tapping a trial. As regards washing out the cavity in purulent exudations, the number of times will vary with individual cases. He has had cases, but in children only, in which once was sufficient. The ideal cure is without rib section, and hence no subsequent deformity; but this ideal is seldom obtained, and then only in fresh cases and in young individuals. He emphasizes his former caution of removing only 1,500 c. cm. at a tapping, and says that he himself began to practice this only after witnessing the unpleasant symptoms following the removal of large quantities.—*N. Y. Medical Journal.*

Spartein Sulphate as a Medicament.

The following statements are based upon results obtained in the clinic of NOTHNAGEL. In cases of deficient heart activity, whether in valvular disease or emphysema, pleuritis and icterus, the drug was given in powder in doses of one milligramme, easily taken. Syphygmograms showed the effects produced.

1. In very small doses the heart's contraction was strengthened, the pulse was fuller and stronger, the arterial tensions increased, the frequency slightly diminished.

2. These effects followed from three-quarters of an hour to an hour after administration, endured often longer than twenty-four hours, and were increased by repetition of the dose. An intermission of several days is useful, after which the drug acts more powerfully; it may be given daily for more than a week without injury.

3. Impaired rhythm at first noticed, is in a few cases only again observed; in seven heart lesions the ventricular action is much improved, but not made that of health.

4. Respiration at first becomes more frequent, is then slightly less frequent.

5. Diuresis, as would follow increased heart action, is increased.

6. A mild narcotic effect of the drug is often noticed, generally resulting in rest and sleep.

7. Symptoms of intoxication, giddiness, headache, heart palpitation, and nausea follow the use of small doses (1 to 4 milligrammes) very rarely, soon disappear, are slight in character, and are generally not observed in repeating the dose.

Spartein resembles digitalis. Its effect is, however, too sudden, and does not remain at its maximum sufficiently long to relieve severe disorders of compensation, while repeated doses of spartein do not result as efficiently as the use of digitalis. Its fixed dose and harmlessness will make it very useful; it seems more useful than caffeine, adonis vernalis, or convallaria.

It may be given in valvular lesions when compensation fails and the pulse lacks strength; also to regulate and strengthen a disordered heart action; also in insufficiency of the heart muscle without valvular lesion; also in pericarditis, as an aid in diuresis, and to supplement digitalis.—*Centralblatt für die gesammte Therapie.—Jour. American Med. Assoc.*

Experimental Studies of Kephir.

We abstract the following *résumé* regarding kephir from the *Verhandlungen der Med. Gesellschaft zu Würzburg.* The observations were all made on patients reduced by exhausting diseases, such as diarrhœa, anæmia, and tuberculosis.

1. Kephir increases the urinary secretion appreciably only when used in large quantities.

2. The specific gravity of the urine and the total weight of the solids in the

urine sink under the influence of kephir.

3. The nitrogenous tissue-changes are checked.

4. Digestive energy and nutrition in general are invariably raised even in the most exhausted individual.

5. The bodily weight increased materially.

6. The number of the red blood-corpuscles increase.

7. The pains of lung and stomach affections subside in a few days.

8. The sleep becomes more quiet and more refreshing.

9. The body becomes rounder and fuller.

10. The pallor of the face yields to a fresh and red color.

11. Hence we must regard kephir as one of the most effective of all means to recover the physical powers after a long or exhausting affection.—*Therapeutic Gazette.*

Indestructible Paste for Closing Letters.

Letters or envelopes which it is desired to protect against unauthorized opening (by moistening the pasted portion) may be securely sealed by using s solution of oxide of copper in ammonia as paste. This liquid has the faculty of dissolving cellulose. When applied to the paper it dissolves the cellulose on the surface, and on drying the two partially dissolved surfaces adhere indissolubly together. The same thing may be done by using water-glass (silicate or soda of potassa). In this case the chemical action is different, but when it is completed the pasted surfaces cohere as permanently as in the preceding case. —*Medical and Surgical Reporter.*

Cantharides as a Preventive of Rabies.

Dr. Karchevski (*Russkaya Meditsina : Brit. Med. Jour.*) has recently tested cantharides as a preventive of rabies, at the suggestion of Professor Lashkevich. Three men who had been bitten by a rabid wolf were the subjects of the experiment, and one of them had been bitten very severely. Cantharides plasters were applied to all the wounds, and the drug was given internally, a grain of the powder daily, for a week, when the patients complained of a sense of heat in the urethra. Seven months have elapsed and the men are still well, but the author does not intimate that a definite conclusion is to be drawn from the fact.

Iodoform Vaseline in Small-Pox.

Dr. Colleville recommends in the *Union Médicale du Nord-Est* a vaseline ointment of iodoform, of the strength of 1 to 20, as not only an antiseptic emollient gratifying to the patient, but as somewhat anæsthetic and as preventive of the formation of foul smelling scabs and of pitting. Dr. Colleville has observed that in a case of confluent small pox where iodoform ointment was frequently applied, the vesicles were prevented from developing into pustules. No signs of iodoform poisoning have been observed in any of the ten cases in which this treatment has been employed.—*Medical and Surgical Reporter.*

Notes on Some New Drugs.

We abstract the following from *Der Fortschrift :*

1. *Ulexine* (seed of *Ulex Europæus*) furnishes an alkaloid called ulexine by Zerrard.

Physiological action : Applied to frogs the drug acts as a paralyzing agent.

Placed upon the tongue the hydrochlorate of ulexine causes anæsthesia, though to a less extent than cocaine.

2. *Cortex Cascara Amarga* (from the West Indies, from which Thompson prepared the alkaloid picramine) is said to

be valuable against skin diseases and syphilis.

3. *Jacaranda Lancifolia.*—In doses of 10 drops of the tincture and of f. ʒ i of the extract the drug is claimed as a specific against gonorrhœa and syphilis.

4. *Njimo-Wood* (of West Africa) is regarded by the natives as a remedy against gastric pains and loss of appetite. Like the coca-leaves in Peru, the njimo-wood is used as a stimulant by the negroes.

5. *Radix Aristolochiæ Cymbiferæ* is said to surpass in energy the officinal serpentaria. In Brazil, the home of the plant, the drug is regarded as a sure cure for snake-bite and typhoid fever, and is called "mil homens."

6. *Radix Coca-Coca.*—The Indians in Peru use this drug against liver affections and muscular colds.

7. *Radix Ping-Ping.*—Prof. Möller examined this drug, and states that it is valuable in vesical troubles.

8. *Radix Tayugæ.*—Stated to be of use in syphilis and skin diseases.

9. *Semen Anda Assn.*—The oil acts like castor oil, but has the advantages of being a finer fluid and acting in smaller doses. Home, Chili.

10. *Semen Huingan,* Chili.—Used as an infusion against urinary affections:—*Therapeutic Gazette.*

Vance's Mixture.

℞. Quiniæ sulphat., ferri phosphat., āā gr. 32; strychniæ, gr. 1; acidi phosph. dil. (tribas.), q. s.; syr. zingiberis, fl. ʒ 2; aquæ q. s. ad., fl. ʒ 4. Mix. Dose, a teaspoonful.

DISEASES OF THE NERVOUS SYSTEM.

Curable Hypertrophic Cervical Pachymeningitis.

Dr. Edward Hertz briefly considers the somewhat meagre literature of the subject, and then reports two cases coming under his own observation. In addition he details two cases reported by O. Berger (*Deut. Med. Wochenschrift,* 1878), one by Féré (*Progrès Médical,* 1883), one by Joffroy (*Arch. Gén. de Méd.,* 1876), and one by Burtin (*Thèse de Paris,* 1878). From these observations he feels justified in formulating the following conclusions:

1. That the disease is caused in the majority of instances by exposure to cold, living in damp dwellings, and prolonged exposure to currents of air.

2. That an analysis of the symptoms confirms the division of the disease into three periods: pains, paralysis and atrophy. For the latter we may advantageously substitute the term period of trophic disturbance, as in fact a veritable atrophy never exists, the muscles preserving the normal volume.

3. That there is a great excess in the quantity of urea excreted, in one case amounting to seventy-six grammes per litre. Improvement is accompanied by a fall in the proportions of urea in the urine.

4. That the disturbances of the sexual functions follow the same course, at first true satyriasis exists, followed by absolute but temporary impotency.

5. That the course of the disease justifies the title of the paper. Cervical pachymeningitis *is curable,* rarely in the first period of disease, but during the period of paralysis and trophic changes.

6. That from the observations of Joffroy, Féré and Burtin, sensible amelioration of the symptoms may be expected in about eighteen months. Prognosis is, however, unfavorable when the disease affects the lower extremities; when the bladder and rectum are affected, or when the deformity of *main en griffe* exists, with wasting of the muscles of the shoulder and the flexors of the forearm.

7. That the prognosis should be favorable in the largest number of cases, and that recovery does not take place progressively, but by sudden improvements followed by temporary relapses, which necessitate continuous surveillance and moderate and prudent interference.

8. That the treatment in the painful period should consist in the employment of anodynes, chloral or morphine subcutaneously, and counter-irritants should be freely applied to the cervical region, particularly scarifications and the actual cautery. Prolonged hot baths are of great service. Electricity exercises a favorable influence over the trophic disturbances. The salicylate of soda is of great value in many cases, as the disease is frequently of rheumatic origin.

Urethane as a Hypnotic.

Dr. Sticker (*Ctrlbl. f. d. ges. Ther.*), sums up his results with urethane as a hypnotic as follows: 1. Urethane is an excellent hypnotic, bringing about its effect through its influence on the brain. It has the advantage over other hypnotics in that it is not followed by unpleasant symptoms, and that the sleep it induces has a close resemblance to physiological sleep. It can be administered in cases where other hypnotics, either because of idiosyncrasy or an injurious effect upon the heart and respiration, are contraindicated. 2. The minimum dose is one gramme (gr. 15), and in patients above fifteen years of age it can be increased to four grammes (℥ j) without danger. The drug may be given in capsules or in solution in water, to which syrup may be added.

In a later number of the same journal (Heft vi) the author makes some further remarks upon the hypnotic effect of urethane. The failures and untoward symptoms reported by other observers he would attribute to an impure preparation of the drug. He always obtained the preparation he employed from E. Merck, of Darmstadt. Another cause of failure, he thinks, may be the administration of too large doses. He himself frequently observed that, while two grammes (gr. 30) produced a healthy sleep, when the dose was increased to four grammes no sleep followed.—*N. Y. Medical Journal.*

Calabar Bean in Epilepsy.

Herr Rush, of Fritslar, recommends Calabar bean in epilepsy, in cases where other drugs have failed. He records some successful cases in the *Deutsche Med. Zeitung:* ℞. Ext. Calabar bean, gr. 7½; spirit etheris, ♏ 80; aq. menth. pip., ♏ 300. Five to ten drops three times a day for children; eight to fifteen for adults. For children he begins with five drops, and increases the dose by one drop daily until the maximum of ten drops is reached. He then diminishes the dose by one drop daily until the initial dose is reached.

It may be tried, but we doubt (from experience) its efficacy.—*Medical and Surgical Reporter.*

DIGESTIVE TRACT.

Ice Water Enemata in the Treatment of Diarrhœa.

The means of treatment, says Dr. R. M. Simon (*Brit. Medical Journal*), has frequently been adopted in cases of collapse occurring during the diarrhœa of young children at Birmingham General Hospital. In cases occurring outside hospital practice, I have found this method not generally known. Being convinced of its utility, I am tempted to record my experience. Ice should be dissolved in water, and from two to three ounces injected. The immediate

effect is commonly a quiet sleep and improvement in the collapsed condition. Subsequently the effect upon the diarrhœa is also good, and it will rarely be found necessary to repeat the enema Internal treatment may often have to be continued, but I have no doubt that the life of many a collapsed child has been saved in this way. No reference is to be found in Ringer's "Therapeutics" to this method of treatment, but doubtless it is known to many of the older practitioners, though its disuse has led to its being unknown to the younger members of the profession. It appears probable that it acts by an astringent effect on the loaded vessels of the intestines, and so at the same time warming the exterior of the body, and diminishing the materials for the intestinal flux. It has sometimes been found expedient to give a few drops of brandy about the time of injection; but in my experience, no depression or bad effect has ever resulted.—*N. Y. Medical Journal.*

Rhubarb in the Treatment of Thread-Worms.

Dr. Sidney Martin (*Practitioner*) thinks that in many cases, although the irritation about the anus may have been relieved by injections, the persistent irregularity of the bowels and disturbance of sleep are owing to the fact that worms still remain in a higher part of the intestine. In such cases he has found that small doses of rhubarb are efficient in bringing the worms away and in regulating the bowels, so that in most instances injections may be dispensed with. He has found the following formula most useful, varied slightly according to the age of the child: Tincture of rhubarb, 3 minims; magnesium carbonate, 3 grains; tincture of ginger, 1 minim; water, to ʒ i. This amount is to be taken two or three times a day, according to the effect on the bowels. Whether the rhubarb acts as a vermicide or simply by "moving the worms on," he is unable to say.

Forced Dilatation in the Treatment of Hemorrhoids.

The indications for the employment of forced dilatation are pain and hemorrhage, the operation being an excellent means of combating these accidents of hemorrhoids. It should not be employed in cases of prolapsus without contraction. Dilatation sometimes gives permanent relief, although the disease generally returns, when the operation may be repeated.

DISEASES OF RESPIRATORY ORGANS.

The Dietetics of Pulmonary Phthisis.

Dr. Alfred L. Loomis, of New York, thus formulates the most important rules which govern the dietetics of phthisis:—

1. Every phthisical patient should take food not less than six times in the twenty-four hours. The three full meals may be at intervals of six hours, with light lunches between.

2. No more food should be taken at any one time than can be digested easily and fully in the time allowed.

3. Food should never be taken when the patient is suffering from bodily fatigue, mental worry or nervous excitement. For this reason, midday naps should be taken before, not after, eating. Twenty to thirty minutes' rest in a recumbent posture, even if sleep is not obtained, will often prove of more value as an adjunct to digestion than pharmaceutical preparations.

4. So far as possible, each meal should consist of such articles as require about the same time for digestion, or, better still, of a single article.

5. Within reasonable limits, the articles of any one meal should be such as are digested in either the stomach or intestine alone, *i. e.*, the fats, starches and sugars should not be mixed with the albuminoids, and the meals should alternate in this respect.

6. In the earlier stages the amount of fluid taken with the meals should be small, and later the use of some solid food is to be continued as long as possible.

7. When the pressure of food in the stomach excites cough, or when paroxysms of coughing have induced vomiting, the ingestion of food must be delayed until the cough ceases, or an appropriate sedative may be employed. In those extreme cases where every attempt at eating excites nausea, vomiting or spasmodic cough, excellent results are attained by artificial feeding through the soft rubber stomach tube.

8. So long as the strength will permit, assimilation and excretion must be stimulated by systematic exercise, and when this is no longer possible, the nutritive processes may be materially assisted by passive exercise at regular intervals.

The following may serve as a sample menu for a day in the earlier stage. The meat soup is made by digesting finely chopped beef (1lb.) in water (Oj) and hydrochloric acid (5*m*) and straining through cheese cloth.

MENU.

On waking—One-half pint equal parts of hot milk and Vichy, taken at intervals through half an hour.
8 A. M.—Oatmeal with abundance of cream, little sugar ; rare steak or loin chops with fat, cream potatoes ; soft boiled eggs, cream toast ; small cup of coffee, two glasses of milk.
9 A. M.—Half-ounce cod liver oil, or one ounce peptonized cod liver oil in milk.
10 A. M.—Half-pint raw meat soup ; thin sliced stale bread.
11–12.—Sleep.
12.30 P. M.—Some white fish ; very little rice ; boiled or stewed chicken ; cauliflower ; stale bread and plenty of butter ; baked apples and cream ; milk, Kumyss or Matzoon, two glasses.
2 P. M.—Half-ounce cod liver oil, or one ounce peptonized cod liver oil and milk.
4 P. M. — Bottle Kumyss or Matzoon ; raw scraped beef sandwich.
5.30–6 P. M.—Rest or sleep.
6 P. M.—Some thick meat or fish soup ; rare roast beef or mutton ; spinach ; sliced stale bread ; custard pudding ; ice cream.
8 P. M.—Half-ounce cod liver oil, or one ounce peptonized cod liver oil and milk.
9–10 P. M.—Pint iced milk ; cup meat soup.
1–2 A. M.—Glass milk, if awake.

DISEASES OF CIRCULATORY ORGANS.

Nothnagel on the Treatment of Pericarditis.

PROFESSOR NOTHNAGEL, of Vienna, in a clinical lecture on the treatment of pericarditis, advises that in cases where there is pain in the cardiac region, fever, and the commencement of exudation, leeches, varying in number from three to ten, according to the gravity of the symptoms and the constitution and strength of the patient, should be applied. The leeches should be renewed every four or six days. Cupping may be substituted, but leeches are preferable. An ice-bag should be applied, or a directing apparatus through which cold water can be constantly supplied to the part. Cold compresses are of no use unless they are laid on ice, and then they must be changed every five minutes. Digitalis for internal use is indicated under certain circumstances. It is useful if the cardiac action is greatly increased, especially if there are signs of the heart-muscle becoming implicated, when it should be given in somewhat larger doses. Digitalis is not desirable in the earlier stages of the disease, but in the later ones, when there are signs of weakness of the heart-muscle and the pulse is weak, it is indispensable. Other internal remedies are useless. Mercurialization—viz.,

calomel in small doses of three-quarters of a grain internally, and gray ointment externally—has no effect. The pain is scarcely ever severe, and if it is persistent it may be relieved by cold and blood-letting. To this a high temperature is no drawback, as the fever subsides as the inflammatory appearances disappear. If effusion has begun, other means must be used, such as counter-irritation of the skin and the promotion of reabsorption. Ice and blood-letting are of no use in this case. The cardiac region must be painted with equal parts of gall and iodine tincture, or an ordinary cantharides plaster may be applied, which should be kept on from eight to twelve hours till a blister is raised. This is of greater use in subacute than in acute pericarditis. Digitalis does not directly promote reabsorption, but indirectly by its influence on the action of the heart. Should the patient's life be threatened by copious effusion, paracentesis of the pericardium must be performed. This operation is often employed, and with not unfavorable results. Great care must be observed; the pointed trocar of Dieulafoy's apparatus must not be used, but a blunt one, like that of Dr. Fraentzel.—*Lancet.*

A New Method of Estimating the Condition of the Right Side of the Heart.

A physicial sign to which attention has lately been called by Dr. W. Pasteur (*Lancet*), is a distension or overfilling of the external jugular veins, apparently from below, with or without pulsation or undulation, which takes place when pressure is exerted in the right hypochondriac or epigastric regions with the flat of the hand, the direction of pressure being backwards and upwards. Before proceeding to make the examination, the patient should be placed in a recumbent posture with the neck slightly extended and the head turned a little to one side, while care is taken that the muscles of the neck are not in a state of tension.

The phenomenon just described Dr. Pasteur believes to be invariably present in well marked tricuspid incompetence, whether functional or due to disease of the valves. Such are instances of mitral valvular disease, whether regurgitant or stenotic, and of chronic pulmonary emphysema, complicated with acute or severe general bronchitis. The question naturally arises whether the distension in these latter cases (emphysema, etc.) should be regarded as evidence of slight tricuspid incompetence, or simply a great over-distension of the right heart falling short or failure of the tricuspid valve. There can be little doubt that the effect of subcostal pressure, whatever the mechanism of its action, is to put increased difficulties in the way of the proper action of the right side of the heart, so that the pressure sign in cases where the tricuspid valve is considered to be still competent is to be looked upon as a measure of the capacity still possessed by the right heart to combat increased resistance. In cases where the tricuspid valve is incompetent, the effect of the pressure is to aggravate the conditions under which the heart is already unable to do its work, with a proportionate increase in the signs of that disability. This subcostal pressure-sign possesses undoubted value as a means of diagnosis, and may also afford valuable information as to the progress and ultimate prognosis of many cases in which we are now reduced to mere conjecture for want of some definite, tangible index of the condition and working power of the right side of the heart.—*N. Y. Med. Times.*

CONSTITUTIONAL DISEASES.

A New Treatment of Fevers.

M. ALBERT ROBIN, who so admirably combines a thorough knowledge of physiological chemistry with medical learning, has just published, in the *Gazette Médicale de Paris*, what he calls "A New Therapeutic Method; or the Oxidizing Method in the Treatment of Fevers, and particularly of Typhoid Fever," In this communication he directly combats the accepted ideas as to the antipyretic treatment of fevers, and he does this in accordance with new grounds which are "more in accord with our knowledge of the state of nutrition in pyrexia." From the chemistry of nutrition in typhoid fever M. Robin lays down the three following propositions: 1. The elevation of febrile temperature does not depend on an increase of organic oxidations. 2. During fever there is retention in the organism of but slightly soluble waste, eliminable with difficulty, and generally toxic. 3. Organic disintegration is very much increased during fever. He now wishes to establish the *first therapeutic principle* to which the chemical study of nutrition in fever leads, and to show that so far from seeking to impede oxidations therapeutics should tend, on the contrary, to make them as active as possible, since, contrary to the classic opinion, the oxydations undergo a remarkable diminution in typhoid fever. Now perfect oxidation gives rise to soluble products, easily eliminated, and almost deprived of toxicity; while other chemical reactions give rise to only slightly soluble waste matter, which is eliminated with difficulty, and usually have considerable toxicity.

M. Robin next proposes to prove that oxidation is diminished in typhoid fever. It has been believed, though wrongly, for a long time that the production of heat is subordinated to organic oxidation. But it is now known that oxidation is not the exclusive source of animal heat and of febrile pyrexia; and it is also known that disassimilation is accomplished by the successive acts of which the first are hydrations and chemical combinations, which give rise to products which are only secondarily overcome by oxidation, and that animal heat results from the *ensemble* of all these reactions. And in typhoid fever, as the acts of oxidation are decreased the part played by oxidation in febrile pyrexia should be proportionally reduced. Now, in reality, the coefficient of oxidation* is less in typhoid fever than in the phlegmasiæ, and even less than in the normal state, since it is not above 74 per 100, while physiologically it is 85 per 100. Again, the proportion of urea is in inverse ratio to the gravity of the disease; and, thirdly, the excretion of carbonic acid of the typhoid fever patient is to that of the healthy man as 83, 8:100. It is therefore vain to attempt to restrain oxidation so as to lower temperature, since this would be assisting the disease. The aim of therapeutics in these cases should be to regulate organic disintegration, and thus to favor oxidations instead of hydrations and chemical combinations, so that the products of tissue waste, having undergone more perfect evolution, may be easily eliminated and rendered as little noxious as possible.

There are, therefore, according to M. Robin, two great therapeutic indications: 1. To eliminate from the treatment of typhoid fever all measures and medicines which retard oxidation. We

* In excessive assimilation the quantity of urea is increased in defective disintegration, according to Robin. To ascertain if the urea is increased it must be compared with the total quantity of urinary solids; and to express this relation he invents the term *coefficient of oxidation*.

must from this point of view, revise all our antipyretics. 2. The second indication is to favor, in every way possible, the organic oxidations which will diminish the formation of extractives, of ptomaïnes and leucomaïnes, and which, at the same time, attacking those products already formed, will assist in their elimination by oxidation, or in other words, will make them more soluble and less toxic. In regard to the first indication: sulphate of quinine retards disintegration without diminishing oxidation, provided it be given in small or broken doses; in large doses it lessens oxidation and the absorption of oxygen at the same time. It should therefore be given in small and broken doses. Antipyrin diminishes nitrogenous disintegration, but it at the same time diminishes still more the oxidation of disintegrated nitrogenous matters. It increases the amount of uric acid, and diminishes the amount of urea; that is to say, it increases the amount of less soluble and not easily eliminated waste matters, while it lessens the vehicle which should carry them off. It increases the excretion of potash; which is to say, it demineralizes (as regards potash) the red blood globules. Other antipyretics have been tested, and will be treated of in a later communication. How is the second indication to be effected? 1. By maintaining in the air to be respired by the patient oxygen in sufficient quantity. 2. By keeping the respiratory apparatus, which is the port of entry of oxygen, in as perfect a state as possible. 3. By stimulating the nervous system, which exercises a direct influence on oxidation (cold spongings and baths increase the coefficient of oxidation, and regulate the proportion between the phosphoric acid and the urinary nitrogen, probably by the assistance of the reflex stimulation which they exert on the nervous system). 4. By choosing among the different drugs, those which cause increase of oxidation. As to the chlorine salts, while they furnish some oxygen to the system, they must be given in large doses for this purpose; and as these large doses are toxic, these salts should be rejected. The iodine and bromine salts are more easily reduced than those of chlorine, but the question of their toxic action on the red globules is not yet solved. We must therefore turn our attention to drugs which favor the absorption of oxygen or set free oxygen. Among the agents which will fulfill this indication are alcohol in small doses, common salt, the alkalies, the salts of organic acids, and the free ingestion of liquids.

As has been already said, the second therapeutic principle, derived from the chemical condition of nutrition during typhoid fever, is to favor the elimination of retained waste matters. This has already been made a special study, one of the conclusions of which is that a number of the so-called antipyretics, among which may be mentioned the salicylates, do not diminish intra-organic oxidation, but act on the temperature, and assist in eliminating in a soluble form, the slightly soluble extractives of the system. We may then speak of this new method as "the removal by solution of incompletely oxidized organic residue." The third principle, the restraining of the disassimilation which is so exaggerated in fevers, will be further studied by M. Robin.—*Jour. American Med. Association.*

Phosphorus in Intermittent Fever.

A Russian provincial practitioner, Dr. SOCHINSKI, states that during a rural practice of five years he has found phosphorus a valuable remedy in intermittent fever. He prescribes

the oleum phosphoratum in the form of emulsion, a drachm in six ounces, of which a tablespoonful is given three times a day. This, he says, never produces unpleasant effects, and is, in his experience, superior to tincture of iodine, tincture of eucalyptus, and even to arsenic, cinchonine, and resorcine, though scarcely equal to quinine or carbolic acid and corrosive sublimate. It is, however, a simple and a very convenient remedy in dispensary or parochial practice.—*Med. and Surg. Reporter.*

A Solvent for Sordes in Ataxic Fevers.

Dr. A. D. MacGregor, of Kirkcaldy, speaks highly of boric acid as a topical application in the unhealthy conditions in which we frequently find the mouth, tongue and teeth in severe cases of typhoid fever. He says:

The mouth is hot; the lips dry, cracked, and glued to the sordes-covered teeth by inspissated mucus and saliva; the tongue dry, or even glazed and hard, brown or black, and crusted with a fœted fur. Under these circumstances, a pigment containing boric acid (thirty grains), chlorate of potassium (twenty grains), lemon juice (five fluid drachms), and glycerine, three fluid drachms, yield very comforting results. When the teeth are well rubbed with this, the sordes quickly and easily become detached; little harm will follow from the acid present. The boric acid attacks the masses of bacilli and bacteria, the chlorate of potassium cools and soothes the mucous membrane, the glycerine and lemon juice moisten the parts and aid the salivary secretion.—*Ibid.*

Fish as an Invalid Diet.

In the *Lancet*, Mr. Nairne gives a series of cases in which a fish diet has given rise to very serious mischief. Several cases are related in which convalescents from typhoid fever have met with a fatal relapse after partaking of some boiled fish. For some time the author excluded fish from invalid diet, as he thought it the cause of all the mischief; but he has found that if fish be steamed it is more tender, and can be eaten with impunity.

Treatment of Diphtheria.

Dr. F. B. Drescher informs us that he has made use of the following treatment in diphtheria with marked success: ℞. Hydrargyri bichloridi, gr. ½; spts. frumenti, ℥ i; syr. simplicis, ℥ i. M. Sig. Teaspoonful every three hours, night and day.

℞. Liq. ferri subsulphatis, ʒ ii; glycerine, ℥ ii. M. Sig. Brush throat once or twice a day.

℞. Tr. ferri chloride, ʒ ij; potassii chloratis, ʒ i; glycerinæ, ℥ iss; aquæ cinnamomi q. s. ad. ℥ iij. M. Sig. Teaspoonful in teaspoonful of water every three hours, night and day.

Iodide of Potassium in Diphtheria.

Stepp (*Dtsch. Med. Woch.*) thinks this drug a specific in diphtheria, because of the thoroughness with which it is absorbed into the blood, whereby it "renders the bacteria innocuous." To children under three years of age he gives a teaspoonful every hour, of a two or four per cent. solution to which a small amount of tincture of iodine has been added. With older patients he uses solutions of from four to ten per cent. [It is not altogether unlikely that any good effect produced by this treatment is due to the topical action of the "small amount of tincture of iodine."] —*N. Y. Medical Journal.*

Saccharin.

Dr. L. Wolff (*Ther. Gaz.*) contributes a short article on the new chemical compound, saccharin. It was

first produced by Dr. C. Fahlberg in 1879. It is a white powder, composed of irregular crystals, slightly soluble in water at the ordinary temperature, but dissolving readily in warm and boiling water, from which it crystalizes out on cooling. It is readily soluble in alcohol and ether. The property which gives to it a therapeutic value is its intense sweet taste, which is so great that one part in seventy thousand of water is distinctly perceptible. According to Professor Mosso, who has recently studied the physiological effect of saccharin, it does not like benzoic acid become converted into hippuric acid, but is found in the urine in the same chemical condition as ingested. Frogs can be kept alive indefinitely in a neutralized watery solution of saccharin. Given in large doses to dogs, it caused no change in the nutrition of the animals, and the quantity of urea eliminated remained unchanged. When animals were given saccharin and kept on full diet, they increased in weight. In man, doses of seventy-five grains produce no effect, and the appetite is said to be increased during its use. Saccharin, therefore, possesses no toxic or deleterious effect on the human organism. Therapeutically it is of value, in that it may be substituted for sugar in diabetes mellitus, and in obesity. The author found that it disguised the bitter taste of quinine in one part to two of the latter. In cases of disturbances of digestion, attended with fermentative processes, and in which sugar and carbohydrates are contra-indicated, it may be used as a corrective for the nauseant taste of other remedies, especially as it has decided antiseptic powers.—*Ibid.*

Rhodan Soda.

This powerful drug has been recently studied by PASCHKIS, the results of whose observations appear in Schmidt's *Jahrbücher*. Its action is somewhat similar to that of strychnine, although less rapid. Five c. c. of a twenty per cent. solution injected under the skin of a frog caused prolonged tetanic convulsions, with inhibition of the respiratory and cardiac movements. Three drops of a three per cent. solution in contact with the exposed heart of the same animal produced a gradual slowing of the beat until the action ceased entirely, to be renewed on the application of a solution of atropine. When injected into the arteries of mammals, it caused a marked and permanent increase in the blood pressure.—*Ibid.*

Therapeutics of Trichinosis.

The value of glycerin in the treatment of trichinosis has been repeatedly alluded to. FIEDLER noticed several years ago, in the preparation of microscopic specimens, that trichinæ and their embryos died at once when brought in contact with glycerin (even if diluted with two to three times its quantity of water). This was evidently the result of the hygroscopic power of glycerin, causing the abstraction of water from the parasites. This fact led Fiedler to treat animals, fed purposely with trichinous meat, with glycerine; but he did not obtain any positive results. Later he exhibited glycerin in several cases of trichinosis in man, and was successful. Mercel also published a case of trichinosis cured by glycerin, so that the profession regards this drug justly indicated in this affection.

In the *Deutsches Archiv für Klinische Medizin*, vol. xxxvii, No. 12, Fiedler recommends the hourly administration of a tablespoonful of pure glycerin in trichinosis, through only in grave cases, as large doses the drug may

produce hæmoglobinuria and other toxic symptoms.

In this instance the employment of Unna's keratine pills or keratine capsules which dissolve only in the small intestines, would appear very appropriate. To complete the abstraction of water from the parasites, Fiedler advises to give large doses of alcohol and to prescribe a rigid dry diet. Glycerin may also be injected into the rectum. A powerful purge, though, is to precede all these therapeutic measures.—*Therapeutic Gazette.*

On Quillaic Acid.

From KOBERT'S remarks on quillaic acid made at the Strasburg meeting of physicians and naturalists last year, as appearing in *Heitler s Centralblatt* we abstract the following *resumé :* The saponine of the market, a mixture of various organic and inorganic substances, contains but little pure saponine, and owes its poisonous properties to quillaic acid and sapotoxine. The former, which can be prepared from the quillaic bark much easier, is itself and in all its combinations extraordinarily toxic, 0.5 mg. of the acid pro kg. (2 lbs.) of bodily weight introduced directly into the blood, killing a dog or a cat, while 2.0 grammes (30 grs.) ingested per os are borne with impunity. The acid affects particularly the muscular apparatus, and in its effects resembles polygala senega. As pronounced by Schmiedeberg, the quillaic acid belongs to the protoplasma poisons. —*Ibid.*

Device for Distinguishing the Different Solutions of Carbolic Acid.

MATTHEW HAY, (Aberdeen) :

A saturated solution of chloride of sodium is used. If such a solution is added in about equal quantity to a 5 per cent. solution of pure crystalline carbolic acid, the mixture becomes milky and opalescent, and the milkiness does not disappear on shaking ; whereas if added to a 2½ per cent. solution, the mixture remains perfectly clear. The opalescence is due to the separation of carbolic acid in the form of minute drops. Chloride of sodium has a greater affinity for water than carbolic acid has, hence it is capable of displacing carbolic acid from its solution. This happens, however, only when the solution of carbolic acid is of sufficient strength. Otherwise they remain side by side in complete solution. In preparing the saline solution, it is preferable to use the pure crystalline sodic chloride employed in laboratories. It is quite a cheap substance. A solution of ordinary salt has often, itself, far from a clear appearance ; there is no other objection to the use of ordinary salt.

It is worth noting that heat scarcely appreciably increases the amount of common salt dissolved by water, but it does hasten its solution. But the solution must not be used hot, or it will not precipitate the carbolic acid. If the solution be kept in bulk, it must not be left in a place where its temperature may be reduced very near the freezing point ; otherwise the strength of the solution may be weakened by the deposition of the salt.

Add the carbolic solution to the salt solution—say in the test tube—not the salt to the carbolic. If the addition be made slowly drop by drop, it will be observed that each drop produces a small white cloud of separated carbolic acid, which disappears at once by a single shake of the test tube until the carbolic acid solution is equal to about one-fourth part of the salt solution, when the separated acid no longer disappears on shaking. If too much of the carbolic

acid solution be added the precipitate begins to redissolve and the mixture to clear. Also the temperature must not be above 74° F. (24 C.) Dry test tubes must be used.

Without regard to the question, "How far can a 5 per cent. solution of carbolic acid be diluted before it ceases to give the reaction ?" the author says that the addition of quite a small quantity of water is enough to prevent the reaction ; that is, no separation of carbolic acid is obtained which does not disappear on slight shaking.

There are many other interesting details given in the paper, which is rather a long one. —*Lancet.*

Elixir Iron Pyrophosphate, Quinine and Strychnine.

Dr. C. R. Bechmann, of Fountain City, Wisconsin, says that the following formula will not precipitate by long standing : ℞. Quinine sulphate, 120 gr.; strychnine sulphate, 3 gr.; iron pyrophosphate, 240 gr.; sodium or ammonium citrate, 60 gr.; alcohol, 2 fl. ℥ ; water, 1 fl. ℥ ; glycerin, 3 fl. ℥ ; simple elixir enough to make 15 fl. ℥ .

Put the quinine and strychnine in a flask, pour on the alcohol and 5 fluid ounces of simple elixir, then place the flask in hot water, shake occasionally, until dissolved. Dissolve the iron in water without heat, then add the sodium (or ammonium) citrate and the glycerin. Pour this solution into the alkaloid solution flask and shake well. When cold add enough simple elixir to bring the quantity up to fifteen fluid ounces. An elixir made three months ago and subjected to 41° F. has remained as clear as when first made.

The Influence of Forebodings in Disease.

Dr. B. W. Richardson (*Asclepiad*) states that there are two kinds of forebodings—the fanciful and serious. False forebodings are presented by persons of fanciful and flighty natures, who are really fond of contemplating risks, and who suggest anxiety one minute, and laugh at them a few minutes afterwards. These forebodings have no serious importance. True or serious forebodings emanate from persons who are firm and thoughtful, who as a rule keep to themselves what is on their minds until something like a crisis has been reached, when they come to a conclusion to which they adhere, by which they are much influenced. These forebodings are a critical disease and are bad, they have a direct effect on the physical powers ; the heart's action is impaired, the digestion becomes affected, and there is a want of tone very much opposed to the restorative efforts. A wise plan is to take as little notice of these forebodings as possible, but to ridicule them is bad.—*Medical News.*

Galazyme.

Is the name bestowed by Dujardin-Beaumetz upon a liquid analogous to koumys or kefir, recently devised by him. The formula, as stated by the inventor to the *Société de Thérapeutique*, is as follows : Bakers' yeast, 4 parts ; sugar, 10 parts. Dissolve in as small a quantity of water as possible and add enough milk to make 1000 parts. Put into small clean and strong bottles, cork well and tie the corks down. Useful in all cases where koumys or kefir is indicated.—*St. Louis Medical and Surgical Journal.*

Dont's for Hospital and Private Nurses of the Sick.

A list of don'ts for the sick room, some good and some otherwise, having lately gone the rounds of the medical

press, I take occasion to amend and extend them in accordanee with my own experience as gleaned from long hospital and private practice. These don'ts embody personal and general observation. They are what have occurred to me over and over again, as essential to sick-room precautions such as very good physicians would probably communicate, or wish to have imparted to the nurse who cares for his patient, because they are essential to the welfare of the patient, and often constitute the unaccounted factor which determines the success or failure of the physician's treatment. We believe they are real hygienic aphorisms, and essential sanitary precautions, the value of which have been verified in the highest general observation. Additions to them from time to time by others, of other pointed and plain precautions which may have been inadvertently omitted by the writer, would make a list of sick room rules for nurses, which committed to memory and incorporated in the nurse's conduct, might add much to the success of physicians in their practice, and to the comfort of patients and lessen the list of deaths.

1. Don't have a light constantly burning in the sick room unless the patient is timid and wishes it, or requires constant attention, or the physician orders it for some good reason of his own.

Never burn a coal oil lamp in a sick room, if it can be avoided; sperm or wax lights are preferable lights in the sick room.

If a light must burn all night in a sick room, place it near a fire place or flue, and secure a little fresh air to nourish the light as well as the patient, where practicable.

A little more air will be requisite for the night gas jet and patient, than for the patient alone in day time.

2. Ventilate every sick room moderately night and day, but never with a draft of air that can strike the patient.

Consult the attending physician as to the amount of air and the place to let it into the room.

3. Remove, or burn, or disinfect at once all offensive matters, but don't burn anything in the patient's room.

Disinfect with corrosive sublimate carbolic acid or chlorine, or other disinfecting compound approved by the physician. Disinfect the commode, or chamber vessel, before and after it is used.

Cover everything offensive and everything the patient is to drink securely.

Never leave a glass of medicine or water for the patient to take not securely (air tightly) covered.

Japanese paper, blotting paper or plain white paper, slightly moistened and held down securely by a plate, or saucer, will make a good protective lid for vessels without close covers.

Remember that fluids absorb the sick room effluvia and they may be so employed as to either purify or poison the patient according to the intelligence of the nurse.

Burning coffee disinfects, so does the vapor of thymol, glycerine and sulphur. Charcoal, copperas and lime are good absorbents.

4. Don't put a patient in a room previously occupied by another patient, especially the room of a patient who has had typhoid fever, phthisis, pneumonia, erysipelas, syphilis, diphtheria, scarlet fever, cholera or any other fevers, before the room has been fumigated well with burning sulphur, flushed afterward with fresh air and the walls and wood-work washed with from one to three per cent. of corrosive sublimate.

Never use bedding or bed clothing of any patient for another until after renovation.

The only safe rule is never to use a room or bedding of any patient for another until they have been thoroughly, antiseptically renovated and cleansed.

In using antiseptics disguise them with the milder or more agreeable one, so as to impart an agreeable odor.

Aromatized vinegar makes a handy and cheap disinfectant and antiseptic in emergencies when the better ones cannot be had. It is ancient and tried.

5. Make the sick room cheerful as you can with flowers and pictures and words that please the patient.

Don't regulate the odor of flowers, or style of pictures or conversation to your taste unless in accord with the patient's likes.

Change the places of pictures, furniture, etc., to destroy monotony, and swap with neighboring rooms at times.

You don't want a profusion of flowers in a sick room and they should be managed like the light in regard to air. Many flowers rob a sick chamber of vitalizing air.

6. Don't have the room temperature below 60° F., unless especially directed otherwise by the physician.

7. Don't make any needless or avoidable noise in going about a sick room, attending the fire or moving furniture, etc.

Don't whistle, or hum a tune or thrum on the foot board of the bed, or on anything else.

8. Be easy and natural and quiet in all your movements about a patient. Don't be fussy.

9. Don't call the patient's attention to his malady by discussing or expressing sympathy. Be kind rather than over sympathetic. Cultivate the patient's pluck and inspire courage by a cheerful, matter-of-fact hopeful manner.

Let the patient see by your manner that you are not alarmed.

Don't show alarm or fear for the result in the case you are caring for.

Express regret in a hopeful way, rather than by depressing and hopeless sympathy.

Be kind, tender, comforting and hopeful in your demeanor, and this will strengthen the patient.

10. Don't discuss bad medical news or calamities of any kind.

11. Don't gossip about the other patients in the hospital. Appear ignorant as you can as to the sufferings and fate of the other patients in the hospital, but answer questions candidly where you cannot avoid answering.

12. Don't discuss in an unfavorable manner the physician's treatment, or name any other physician whom you think might have done better.

13. If you have the Christian's faith, cheerfulness and fortitude, and every nurse should have these qualities whether professing Christians or not, impart them by your manner and an occasional, but never an obtrusive word.

Don't obtrude, unsolicited, the weighty and perplexing question of the soul's salvation upon a mind harassed weakened and made morbidly apprehensive by disease. The fate of the future life is too weighty and awful a subject usually for the seriously sick to discuss.

13. Hope may be inspired in God's mercy, but don't ask a dangerously sick person if he or she is ready to die.

14. In short don't do anything with or towards patients that will disturb them, or irritate them mentally or physically, if you can avoid it.

Don t differ from them in politics, or religion.

Don't deny them anything that would please and not harm them.

Don't promise them anything you cannot give them, or might be kept

from giving them, or doing for them by the physician.

Don't do anything for your patient or about him you are not sure the medical attendant would not direct or approve.

Treatment of Gout.

In a very interesting paper by Dr. LECORCHÉ, on the "Treatment of Gout," the author divides the therapeutics of this affection into two distinct parts: 1. The treatment of the gouty subject in the intervals of the attacks, which he considers the only important and truly fruitful part of the treatment. 2. The treatment of the attack. After having thoroughly studied the subject, both theoretically and clinically, and after having carefully studied the influence of the so-called anti-gouty substances commonly in use, from the various mineral waters to the preparations of colchicum and of the salts of lithia, Dr. Lecorché formulates his conclusions as follows: If there be any specific in medicine, colchicum and the salicylate of soda may be considered such for gout and its manifestations; the former reduces the proportion of lithic acid in the blood, while the latter favors its elimination.

One of the causes of the non-success of these drugs in certain cases, is the extreme reserve with which they are too frequently administered; they then do more harm than good. The author concedes to Professor Germain Sée the credit of having been the first to employ the salicylate of soda against gout, and had brought out the advantages of this substance in the multiple indications of this affection, in which it is utilized for the analgetic power of the medicine, its decongestive or resolving property, and for its power of eliminating lithic acid in certain cases. In fine, the faculty of using, in part, the glycocol, which constitutes one of the most important albuminoid substances. The conclusion of Dr. Lecorché is that the physician should intervene in all cases of gout: 1. By the aid of diet to prevent the gouty diathesis. 2. By the aid of diet and of alkalies to combat the diathesis and to prevent the attack of gout. 3. By the aid of specifics, colchicum and the salicylate of soda, in the generality of cases, to combat the attack of articular or visceral gout.

In connection with the treatment of gout, it may be interesting to learn what Professor Jaccoud says on the subject. He, too, lays great stress on treatment in the intervals between attacks, or, if individuals of a gouty diathesis, temperance in all things, and regularity in the hours of repasts and those devoted to sleep being his fundamental precepts. The diet should be mixed, but more vegetable than animal. Highly nitrogenous substances, such as game, crustacæ and sea fish, should be avoided. Pure water should be the general drink, or if this be not well tolerated, a little white or red wine may be added thereto, or a little weak beer may be allowed. The gouty subject should go to bed early and rise early, and take daily moderate exercise. This treatment should be followed during the whole life, and as a complement to the above, Dr. Jaccoud prescribes that in spring and autumn a course of buttermilk should be gone through. Should these hygienic measures not be sufficient to modify the economy and to rid the patient of the divers gouty manifestations, therapeutic agents must be resorted to. These consist of the daily use of alkaline waters, the benzoate of lithia, in doses of from 60 centigrammes to 1 gramme per day. The bowels should be kept freely moved by small doses of some saline aperient, the best for the purpose being Carlsbad salts, which has the

advantage over the other purgatives of having the faculty of increasing the urinary secretion, whereas with most others it becomes scanty and loaded with sediment.—*Jour. Am. Med. Assoc.*

Dosage of Some of the Newer Remedies.

The *Rundschau*, Leitmeritz, which is, by the way, one of the best German pharmaceutical journals, gives the following information concerning the dosage of the remedies which have come into general use since the last edition of the Pharmacopœia :

Osmic Acid. Best administered in pill form (made up with American bole). The dose 1-60 grain, which may be repeated several times a day.

Agaracine. Best administered in combination with Dover's powder. Dose, 1-12 to 1-6 grain.

Aloin. From 1-3 of a grain to 3½ grains, in pill form.

Antipyrine. Dose, from 75 to 90 grains, divided into three portions, one of which is to be taken every hour.

Bismuth Salicylate. Dose, from 5 to 7 grains, in pill form. In typhoid this may be doubled and repeated every hour, up to ten or twelve times.

Canabinone. From 2-3 to 1½ grains. Best administered mixed with finely ground roasted coffee.

Caffeine. To commence with, the dose should not be over three grains, but this may be repeated every hour until four doses are taken, or say 12 grains *per diem.* This may be increased to double the amount mentioned. The benzoate of sodium and caffeine is a double salt which contains one-half its weight of pure caffeine. It resembles the salicylate of sodium and caffeine, but the latter contains more caffeine (10 parts of caffeine to every 16 parts of the double salt).

Colocynthin. Used subcutaneously. The dose is from 1-6 to 2-3 grain. It may also be administered in pill form by the mouth, the requisite dose being from 1-3 to 1 grain.

Convallamarine. Internally, in pill form. The dose is from ¾ to 1¼ grains, and it may be repeated every hour, until a total of 15 grains is reached.

Enonymin. Best given in pill form, combined with extract of belladonna or hyoscyamus. The dose is from 3 to 10 grains.

Helleborein. May be given in pill, solution, or in suspension in some mucilaginous vehicle. The dose is from 1-6 to 1-3 grain, repeated four or five times in the course of a day.

Tannate of Mercury (protoxide) may be given in a wafer. The dose is 1½ grains, repeated thrice daily.

Nitroglycerin is best given in alcoholic or oily solution. The dose is 1-350 to 1-60 grain, repeated several times daily. Rossbach prefers ether as a solvent. His formula for its use is as follows : Dissolve 1½ grains of nitroglycerin in sufficient ether, and add the solution to a mixture consisting of two ounces of powdered chocolate and one ounce of gum arabic. Mix very thoroughly and divide into 200 pastilles. Each pastille will thus contain 1-333 grain of nitroglycerin.

Picrotoxine. In aqueous solution. Dose, from 1-8 to 1-6 grain.

Sulphate of Thalline may be given dissolved in wine or water (with some corrigent). The dose is from 4 to 8 grains.—*St. Louis Med. and Sur. Jour.*

Microbicidal Therapeutics.

Dr. Albin Meunier, announces (in the *Lyon Médical*) as a maxim, that "many diseases are caused by microbes : every microbe has its known microbicide, and hence, all that is necessary to cure these diseases is to know how to

employ the microbicides by hypodermic medication." Dr. Meunier has further discovered that vaselin, chemically pure, of a specific gravity of 0.820 is a perfect solvent of all microbicides not dangerous to the economy, thus enabling them to be injected into the subcutaneous cellular tissue and *probably into all the organs* without leading to inflammation or abscess or causing pain! Eucalyptol, thymol, menthol, cubebs, oil of sandal wood, copaiba, canella—in short all of the hydrocarbons whose formula is $C_3n\ H_3n\text{-}^4$ and $C_3n\ Hn$, beside carbolic acid, camphor, creosote, iodine, iodoform, and even the alcaloids, such as cocaine, digitaline, etc. The following is his method of preparing the solution, taking eucalyptol as a type: eucalyptol, 5 parts; vaselin, S.G. 0.820, 20 parts. Mix, agitate sharply and let stand. A resinous matter separates and is gotten rid of by filtration, the filtrate being a pure, limpid solution. All of the hydrocarbon essences (whose formula is the first above given) may be used in the same manner. Iodoform may be added to any of them in the proportion of 1 part to 20 parts of the hydrocarbon (one quarter of a part to five parts,) by dissolving it in the essence before mixing with the vaselin. Sulphide of carbon may be used 1 part to 15 of the vaseline. Without being so sanguine as Dr. Meunier, the fact that vaselin is a solvent for these materials in the manner stated is a valuable hint in therapeutics.—*St. Louis Medical and Surgical Jour.*

Treatment of Erysipelas.

For the treatment of erysipelas Dr. ARCHANGELSKI has tried a number of applications, and finds that their comparative efficiency is represented by arranging them in the following order: (1) benzoic acid; (2) tincture of iodine and turpentine, as ointment; (3) sulphate of copper; (4) sulphate of iron; (5) oxide of zinc; (6) naphthalin; (7) solution of perchloride of mercury, 1 to 300; (8) chloride of zinc; (9) iodoform.—*Medical and Surgical Reporter.*

DISEASES OF THE NERVOUS SYSTEM.

Acute Melancholia Caused by Impacted Fæces.

HUTCHINSON has detailed an interesting case of this kind occurring in a married woman of forty. At the time of her admission into the Western Pennsylvania Hospital for the Insane, the patient suffered from acute melancholia, was very weak and extremely emaciated, her skin was bronzed, dry, and harsh, her hair was dry and falling out, and all the secretions of the body were perverted. On examination, a distinct tumor could be felt through the abdominal walls, following the course of the rectum and sigmoid flexure and making the introduction of a catheter to relieve the distended bladder almost impossible. The tumor was immediately thought to be an accumulation of hardened fæces. Accordingly, the scoop and appropriate injections were employed for several days, with the ultimate result of removing the mass entirely. Rapid improvement in the patient's health, both mental and physical, followed this evacuation, so that in less than one month she was discharged, being then in the enjoyment of perfect health of body and mind alike.—*N. Y. Medical Journal.*

A Pathognomonic Symptom in the Diagnosis of Tubercular Meningitis.

DR. J. D. SKEER, (*St. Louis Med. and Surgical Jour.*)—The main object of the paper is to call the attention of the society to a symptom which I have never seen mentioned in the literature

of the subject, and which, according to my observation, is always present during the first or second stage of tuberculous inflammation of the membranes of the brain.

The symptom to which I allude is a small circle which forms in the iris, near to and completely surrounding the pupillary margin. When it begins to appear, it is very indistinct and resembles a wreath of thin, white clouds, the edge of which extends at first to the free border of the iris. In from twelve to thirty-six hours the whole margin of the iris will be involved, having become of a whitish or yellowish-brown color, and appearing irregular, thickened and somewhat granular. These changes, which commence in both eyes simultaneously, are more apparent in irides of a brown color. In this connection we should remember that some children, especially those born of scrofulous or tuberculous parents, have a light colored circle on the free border of the iris, composed of cloudy and white fibres, which radiate from the centre toward the circumference. This cloudlike appearance is in some cases very evanescent, hence the necessity of examining the iris at every visit. They may appear in the evening, and by the following morning have given place to the yellow-brown rings caused by the subsequent changes in the tissues. These later rings are permanent and grow narrower and larger with the progressive dilatation of the pupils as the disease advances.

In cases where tubercle bears an ætiological relation to the meningeal trouble, the circles appear early, before or during the decline of the fever which characterizes the first stage of the disease. In cases where the original simple inflammation has, by its nutritive changes, called into activity a latent tubercular tendency, they appear in the second stage of the disease. In no instance have I observed them in a simple acute case.

I first noticed this peculiar symptom some twenty years ago in a case occurring in my own family. At that time I attached no importance to it, but since then I have met with it in twenty or more patients, all of whom died. In two cases an opportunity of making a *post-mortem* examination was afforded, tubercles being found in each instance.

I have never examined the iris under the microscope, but it seems to me to be in harmony with the pathological anatomy of tubercular meningitis to regard this morbid process as an infiltration of tuberculous matter into the perivascular sheaths of the circulus minor, followed by some degenerative change of the tissues of the iris. Nothing, however, but a careful microscopical examination can determine it pathological anatomy.

When the wreaths of white clouds appear in the iris in a case of cerebral meningitis, I consider the question of diagnosis settled beyond all doubt. They are, in my opinion, pathognomonic of tubercular meningitis, and enable us to make a positive diagnosis, and at the same time an unfavorable prognosis.

Tendon-Jerk and Muscle-Jerk in Disease, and Especially in Posterior Sclerosis.

Dr. S. Wier Mitchell and Dr. Morris J. Lewis, (*Am. Jour. of Med. Sci.*) contribute a short paper with this title. A sketch of the history of the knee-jerk is given. In 1883, Jendrassik showed that violent exertion—such as lifting weights or clinching the fists—increased the response to a blow on the patellar tendon. Later on the authors showed that every distinct muscular

exertion, even if as slight as winking, increased the jerk, if it was timed correctly. Every strong sensation on the skin acts in the same way. If sudden exertion is combined with violent sensations, like that caused by the faradaic wire brush, the coincident knee-jerk equals that seen in spastic disorders. If the muscle itself is struck sharply with a percussion-hammer, the fibres shorten in response to the blow, and the same laws apply to the increase of this as of the knee-jerk. Section of the nerves, or disease of certain portions of the cord, as in posterior sclerosis, ends all tendon-jerks, while a blow on the muscle still evokes local motion in its tissue. These facts the authors have applied in the study of twenty-three cases of locomotor ataxia, the results of which are given in three tables. In these they have represented symptoms and their force by signs. A search for tests of the pre-ataxic stage was unfruitful ; the earliest signs found were pains, or strabismus, and with these, loss of knee-joint. The tendon-jerk could be re-inforced by exertion and violent sensations during the first stage, while the muscle-jerk could be re-enforced by the same means during the first and second stages. A pronounced tendon-jerk, capable of excessive re-enforcement, is sometimes seen in the earliest stages of locomotor ataxia. Wounding of the muscle at the point struck sometimes occurs in stages four and five, occasionally even in three. The authors, for the purpose of their study, have divided the course of locomotor ataxia into six stages.

A new symptom—distinct prominence of the eyes, with a full appearance of the surrounding tissues not due to œdema—was found six times, chiefly in cases of long duration.—*N. Y. Medical Journal.*

Temporary Paralysis of the Radial Nerve in the Initial Stage of Locomotor Ataxia.

PROFESSOR A. STRUMPELL (*Berl. klin. Woch.*) reports an interesting case of this nature. Briefly the history of the case is as follows : B., aged fifty-five, a waiter, was suddenly seized with paralysis of the left hand. On a Sunday afternooon he was reading a newspaper which he held in his left hand ; all of a sudden the paper dropped from his hand and he then learned that he had lost power in it. He had never experienced any pains or abnormal sensations. On examination, it was found that all the muscles supplied by the radial nerve were paralyzed, the sensibility of the forearm and hand was intact, and the electrical excitability of the paralyzed muscles, with both currents, were quite normal. The author found some difficulty in accounting for the paralysis ; the most plausible theory was that it was due to alcohol, but its sudden appearance and the absence of pains and other signs of alcoholism strongly opposes that theory. On further examination, however it was found that the patient had the Argyll-Robertson pupil, the sensibility of the feet and legs was somewhat diminished, and there was absence of the knee-jerk on both sides. On repeated questioning, the patient confessed to having had for some time past "tearing pains" in the legs and a weakness of the bladder. A history of syphilis could not be obtained. Under four weeks' treatment with electricity the paralysis disappeared, without any change, however, in the other tabetic symptoms. [The case is of considerable interest as bearing upon the recent pathological researches of Pitres and Vaillard on the condition of the peripheral nerves in tabes. In our last report on General Medicine we gave an abstract of their work in this direction, and we

would advise our readers to compare it with the clinical history of Strumpell's case.]—*Ibid.*

Self-Abuse in its Relation to Insanity.

DR. E. C. SPITZKA, in an article on this subject, recently published, arrives at the following conclusions:

1. Self-abuse is an etiological factor in a large number of cases of insanity, but only those cases should be designated as insanity of masturbation in which the connection between the excesses and the symptoms is direct.

2. Self-abuse, to produce insanity, must have been carried very far, or the subject must be predisposed. Often onanism can be traced in other members of the family, and very often it is found that the maternal ancestry is a weak one.

3. Mania, melancholia, and epilepsy occasionally occur in young masturbators, the former two usually having a favorable prognosis.

4. Stuporous insanity and katatonia are both common, and the former presents good prospects.

5. The forms thus far mentioned, when occurring in masturbation, present no essential differentiation from the typical psychoses. They should therefore be designated as mania, melancholia, stupor, etc., from masturbation, and not as masturbational insanity.

6. There is a chronic delusional insanity in grown persons who have been devotees of self-abuse, and it is usually a hypochondriacal paranoia. Clinically it is very like typical paranoia, and etiologically it is not the direct result of self-abuse, but rather of an intermediate neurosis—a cerebro-spinal irritation which is due to self-abuse.

7. Finally, there is a form of insanity developing about or after the period of puberty which does merit the name "masturbational insanity." It is chronic, has a tendency to agitated dementia, is characterized in its early period by anxiety, timidity, suspicion, fear, and a cowardly mean disposition. Later there are confusion, meddlesome, aggressive behavior, vague delusions, loss of memory, and finally deterioration. After these are observed spells of fury or destructiveness. This form is never due to any other cause, and resembles no other form of insanity than the one already alluded to.

8. It is not always possible to differentiate between the insanity of pubescence and the form described. But where the former disorder is uncomplicated by the latter, it may be known by a history of peculiarities in infancy and childhood, by the greater constancy of the mental state, which in onanists is exceedingly variable. Hebephreniacs are more apt to be expansive in their notions, more inclined to favor projects of a chimerical character. In other words, insanity of pubescence is the paranoia of adolescence, and masturbational insanity the pre-senile dementia of the same period of life.

The Medical Jurisprudence of Crime and Responsibility.

DR. DANIEL CLARKE (*Medical News*) concludes his paper, read before the Canadian Medical Association, as follows:

1. The natural history of crime shows that brains of chronic criminals deviate from the normal type, and approach those of the lower creation.

2. That many such are as impotent to restrain themselves from crime as the insane.

3. That immoral sense may be hidden from expediency by the cunning seen even in the brutes, until evoked by circumstances.

4. No man can shake himself free from the physical surroundings in which he is encased.

5. Crime is an ethical subject of study outside of its penal relations.

6. Insanity and responsibility may co-exist.

7. Some insane can make competent wills, because rational.

8. The monomaniac may be responsible should he do acts not in the line of his delusion, which are not influenced thereby.

9. Many insane are influenced in their conduct by hopes of reward or fear of punishment in the same way as the sane; the rudiments of the free will remain.

10. Many insane may have correct ideas in respect to right and wrong, both in the abstract and concrete.

11. Many insane have power to withstand being influenced even by their delusions.—*American Lancet.*

DIGESTIVE TRACT.

Diagnosis of Ascites by Means of the Vaginal Touch.

It was almost by accident that Dr. TRIPIER'S attention was directed to a mode of diagnosis which subsequent observation has shown to be quite trustworthy.

In 1884 a young woman entered his service at the Hôtel-Dieu for a double pleurisy, which he regarded as of tuberculous character. In the course of her disease, she complained one day of a quite acute pain in the left iliac fossa. This pain was increased by pressure; but there existed at that site no swelling, nor fluctuation, nor dullness. The whole abdomen presented its usual resonance. Considering, however, the possibility of a tuberculous peritonitis or the presence of some other tuberculous lesion on the part of the genital organs, he completed his examination by practicing the vaginal touch.

He found no swelling, no puffiness; the vaginal walls, and especially the cul-de-sac were quite free and supple. The neck of the uterus was conical and prominent as in women who have not borne children. Its situation was normal, but when the finger touched it, it seemed to withdraw from the finger by reason of an abnormal mobility. Moreover, it would move in every direction with the utmost facility without any impression of the presence of the body of the uterus, just as if the neck had been fixed at the roof of the vagina by means of an articulation permitting movements in every direction. Not only did the neck rise on the slightest contact, but if the finger was passed into the vaginal cul-de-sac in order to explore the supra-vaginal portion of the neck of the uterus, these parts could not be reached.

These phenomena could only be explained by loss of part of the weight of the uterus, due to the presence of a certain quantity of liquid in the pelvic cavity. He made the diagnosis of an effusion of serum caused by tubercular peritonitis, and this diagnosis was confirmed first by the progressive increase of the effusion, which, in a few days, presented all of the classical signs characteristic of ascites, and later by the autopsy.

In a great many cases since, he almost invariably observed the same diminution in weight of the uterus and characteristic mobility of the neck in cases of ascites, whether the amount of effusion was great or small. These symptoms present different degrees corresponding to the varying amount of effusion and the condition of the uterus, and especially its neck. They were less pronounced in cases of pronounced anteflexion, and less distinct in women in

whom the neck was more or less effaced or lacerated, but especially in those who had had periuterine inflammations, with adhesions of the uterus to the neighboring parts, and still more in those with tumors of the uterus immobilizing the organ more or less completely. Therefore the determination of uterine or periuterine lesions would indicate that the vaginal touch cannot be depended on in seeking for ascites; these cases are exceptional,and we can detect by this method the presence of a very small quantity of liquid, whatever be the cause. —*St. Louis Med. and Sur. Jour.*

DISEASES OF THE URINARY ORGANS.

Recent Researches in Diuretics.

To what extent the Malpighian corpuscles and renal tubules respectively take part in the secretion of urine, is not yet accurately known, although the researches of Heidenhain, Nussbaum, and others, have added much to our knowledge. It seems likely that an investigation into the mode of action of diuretics will throw great light on the question, because a diuretic drug may act either on the Malpighian corpuscles, increasing the flow of urinary water, or on the renal tubules, increasing the amount of urinary solids, or on both structures. The great difficulty, however, in experiments on the kidneys in living animals, is that of estimating how much of the effect produced by a drug is due to changes in the circulation, or in the nervous system, which has an influence on the secretory activity of the kidney, as well as on the blood-vessels. Munk has, in his recent experiments, eliminated these factors by investigating the action of diuretic drugs on an excised kidney. The organ, after excision, was nourished under a pressure of 100 to 190 millimètres of mercury, by a stream of blood and salt solution through the renal artery. The drug was added to the liquid, and its effect noted by the amount of urine, collected through a cannula placed in the ureter. Before the addition of any drug, it was found that the amount of urine secreted in an hour varied from 4 to 24 cubic centimètres; that this was a true secretion, and not a simple diffusion, was shown by the fact that it contained a greater portion of saline constituents than the circulating fluid. The addition of chloride of sodium, nitrate of sodium or potassium, caffeine, dextrose, cane-sugar, or glycerine to the circulating fluid, increased the secretion of urine three to fifteen times, the pressure remaining the same; while in the case of nitrate of potassium and caffeine, there was an increased rapidity of flow of the circulating fluid. Diuresis of this nature and under such conditions could only result, according to Munk, from a stimulation of the secretory cells of the kidney by the drug, a conclusion which, as regards caffeine, had already been arrived at by von Schroeder. An interesting result obtained by Munk was the appearance of hippuric acid in the secretion from the kidney, when benzoate of sodium and glycocol were added to the fluid circulating through the vessels of the kidney. As is well known, benzoic acid given to any animal appears as hippuric acid in the urine; and this result has been supposed to be due to the action of the intact blood-corpuscles. But, in Munk's experiment, these were absent; hence he concludes that the transformation is probably brought about by the oxygen which is combined with the hæmoglobin.—*Brit. Med. Jour.—Md. Med. Jour.*

[A valuable diuretic long since forgotten, is the infusion of broom corn. We note, however, in recent writings it has received due credit.]

CONSTITUTIONAL DISEASES.

Clinical Experience in Typhoid Fever.

DR. AUFRECHT, chief of the City Hospital of Magdeburg, favorably known to the profession both as clinician and as author, publishes from time to time, under the title of "Pathological Communications," a little pamphlet, intended to represent the clinical experience gathered at that institution. The third number issued this year, treating of typhoid fever and its therapeutics, deserves to be carefully considered.

The clinical material embraces five hundred and fifty-one cases of typhoid fever that during the last six years came under Aufrecht's observation. Of these fifty-eight (*i. e.*, 10.5 per cent.) died, four even within twenty-four hours after admission to the hospital.

Aufrecht declines to regard the elevation of temperature alone as an indication for the bath, and employs the latter only in patients who, together with a temperature of 40°C., present a small but frequent pulse, and either nervous ataxia or delirium. Cases marked by a good, firm pulse, and freedom from nervous symptoms, were invariably found to take a favorable course without baths, in spite of the height of the temperature, while, on the other hand, the bath employed in accordance with the above indications proved also a constant success.

The routine practice in the Magdeburg Hospital, is to give the typhoid fever patients a weak solution of muriatic acid (15 drops; 6 oz. water with 1 oz. syr. simpl.), an ice bag placed upon the epigastric region and another one on the head in cases of cephalalagia. Most patients received also a tablespoonful of Hungarian wine every two hours, a practice which Aufrecht, however, does not approve of in private patients, these having generally a greater amount of albumen in store than the hospital patients.

If the evening temperature is beyond 39.5° C., and the above indications for the use of the bath are absent, the patient receives, beginning with the next morning, daily, 7¼ grains of hydrochlorate of quinine. Except these small doses of quinine, which only exceptionally, in rare cases were doubled, Aufrecht used no other antipyretic. To prevent decubitus, every patient is, at the very beginning of the treatment, placed upon a water-bed. In this manner Aufrecht has avoided all cases of decubitus for the last two years.

The febrile dryness of the tongue, may, our author believes, lead to grave consequences. The mucous membrane is gradually being broken, swallowing is rendered painful, and the patient refuses or is unable to take food. Speaking is likewise rendered difficult, if not impossible, for the same reason. Nor is it unlikely that through the broken mucous membrane of the larynx and pharynx bacteria penetrate the submucous tissues, and give rise to various grave local and even constitutional disturbances. This difficulty cannot, as might be presumed, be obviated thoroughly even by constantly repeated draughts of water. Aufrecht applies, as soon as the tongue begins to dry up, glycerin, every two hours, or more often, to it, in so thick a coat that a part of the drug, through the induced motions of swallowing, reaches the hindmost portions of the pharynx and larynx. This procedure protects the parts from tears and crust formations.

Diarrhœa was combated by opium, if the stools exceeded the number of four in twenty-four hours. The drug is given in powder form, in one-half grain doses, two to four times daily.

In intestinal bleeding the liquor ferri was found to be wholly useless, and besides, irritative to the digestive functions. To decrease the peristaltic movement the patient received ¼ of a grain of morphine and two Pravaz syringes of a watery solution of ergotine (1 to 10). The latter solution is to be absolutely fresh, as in older ones germ formation readily takes place. Friedlander's sterilized hypodermic solution will, of course, henceforth be exclusively used.

The vomiting often observed in typhoid fever patients, in connection with peritonitic symptoms, is by Aufrecht referred to intestinal ulcerations encroaching upon the peritoneum, and is treated by morphine given per os, or in obstinate cases hypodermically. This medication exhibited at the very beginning of the vomiting, may possibly, in many cases, prevent a peritonitis, of which the vomiting is simply a premonitory symptom.

An especial value is placed on morphine in the cases marked by intense delirium.

Meteorism is best treated with ice applied to the epigastric region, and with small doses of morphine.

In conditions of collapse the hypodermic injection of camphor is unquestionably the most efficient remedy. The oil of camphor (6 camphor—24 oil of sweet almonds) is a very eligible preparation for this purpose. Aufrecht uses as much as 30 grains of camphor—*i. e.*, ten Pravaz syringes daily—even for several successive days. Abscesses have never been observed after these injections of oil of camphor.—*Ther. Gaz.*

Diphtheria.

Dr. I. U. Love, in an article published recently in the *Weekly Medical Review*, after a full discussion of the etiology, treatment, etc., concludes as follows:

I have since November, 1884, given no quinine and iron, except in the period of convalescence as a tonic; and absolutely no chlorate of potash, believing that it is frequently productive of harm, and of all the remedies probably more abused by the laity and the profession, save quinine.

In children of a larger growth I occasionally order gargles of the sublimate, one part to 2000 water, alternated with a solution of boracic acid, thymol and eucalyptol.

Now and then the local application of oil of turpentine to the pharyngeal surface is indicated, and a more healthful application to a mucous surface was never made, and as a diffusible stimulant and an accelerator to the glandular system, nothing is better.

The bichloride and the benzoate of soda, as administered above, are admirably successful in controlling and relieving doubtful cases, which never advance further than being tonsillitis or ulcerated sore throat.

From the foregoing, based upon my reading, observations and experience of the past fifteen years, I feel justified in arriving at the following conclusions:

1. In the management of diphtheria, nutrition, stimulation, antisepsis and elimination are the most potent means of antagonism.

2. The nourishment should be of a character to be readily assimilated, and in the majority of the cases should be peptonized.

3. Good whisky or brandy as diffusible stimulants are to be preferred.

4. The bichloride of mercury in small doses frequently administered, accompanied with liberal quantities of water, coupled with the benzoate of

soda, are the most reliable antiseptics and glandular stimulants at our command.

5. That too great stress cannot be given to the sodium benzoate as a local and constitutional measure.

Novel Treatment of Diphtheria by Digitalin and Sulphide of Calcium.

We condense the following important therapeutical considerations from the *Archives de Pharmacie :*

Dr. Galicier some time ago eulogized a novel form of treating diphtheria, which, it seemed, had given excellent results. A paper appearing in the *Moniteur Thérapeutique*, by Dr. Cug, of Pau, in which this physician claims to have saved two cases of diphtheria,—two boys, aged 4½ years and 5 months respectively,—calls our attention anew to the plan proposed by Dr. Galicier. This physician orders the following pills : ℞. Sulphide of calcium, 0.05 ; digitalin, 0.001 ; arseniate of quinine, 0,001. M. Fiant. pil. S.—Take one every hour, day and night.

Both Cug and Galicier claim that no intoxication was ever produced by this remedy. The great general intoxication probably prevents any further intoxication from the part of digitalin.

The pills are usually continued for a couple of days.—*Therapeutic Gazette.*

Drugs and Digestion.

Dr. R. G. Eccles (*New York Medical Journal*):

The author has performed numerous elaborate experiments to determine the effect of various drugs and chemicals on the digestive process, which, in the present instance, is carried on artificially at a fixed temperature 100°–120° F. (40°–49° C.)

At first some acids were tried with the following results, the figures denoting the number of hours digestion was delayed, the minutes being omitted : Chromic, picric, molybdenic, sulphuric, thymic, hydrobromic, salicylic, pyrogallic, nitric, over 10 hours ; hyperchloric, cathartinic, chrysophanic, and tannic acid, 3 hours ; benzoic, oxalic, citric, tartaric, oleic, boric, acetic, and lactic, over 2 hours. Of the alkaloids and their salts : Ferrocyanide of quinine, citrate of iron and strychnine, citrate of iron and quinine, delayed over 5 hours ; sulphate of cinchonidine, sulphate of cinchonine, sulphate of quinidine, sulphate of quinine, bisulphate of quinine, sulphate of strychnine, 4 hours or over ; tannate of quinine, salicylate of quinine, salicylate of cinchonidine, chloride of quinine, bromide of quinine, sulphate of atropine, 3 hours or over ; hydrochloride of cocaine, chloride of morphine, bromide of caffeine, veratrine, strychnine, aconitine, brucine,morphine, acetate of strychnine, chloride of pilocarpine, acetate of morphine, codeine, 2 hours or over. Of essential oils : Cinnamon, pimento, lemon grass, bitter-almond, retarded digestion over 10 hours ; clove, over 9 hours ; bay, bergamot, sassafras, over 8 hours ; winter-green, 5 hours ; rose and origanum, 4 hours ; citronella, caraway, coriander, spearmint, pennyroyal, aniseed, fennel, lavender, peppermint, thyme, wormwood, erigeron, cajeput, rosemary, nutmeg, rose-geranium, orange, over 3 hours ; lemon, wine (ethereal), amber, neroli (petale), black-pepper, juniper, savin, cedar, patchouli, croton, sandal-wood, cubeb, turpentine, over two hours. Of balsams : tolu retarded digestion, 5 hours ; peru, 4 hours ; canada and copaiba. over 2 hours. Of tinctures : those of the chloride of iron, iodine co., chloride of iron (tasteless), guaiaci, guaiaci ammon., lupulin, delayed digestion over

10 hours; belladonna, 9 hours; Warburg's cannabis indica, opium, 8 hours; benzoin co. and simple, 6 hours; verat. virid., cubeb, buchu, aloes and myrrh, valer. of ammon., hyoscyamus, over 5 hours; asafœtida, tolu, kino, myrrh, 4 hours; catechu, colchicum root, digitalis, physostigma, colocynth co., modified Warburg, avena sativa, santal, gentian co., sanguinaria, cinchona simp., nux vomica, cascarilla, senega, capsicum, hops, gentian, orange peel, galls, senna, lobelia æther., krameria, quassia, valerian, aloes, colchicum seed, cinchona co., 3 hours; stramonium, cardam simp., cardam co.. lobelia, squills, rhubarb co., cinnamon, ginger, cantharides, lavender, ipecac co., poke, rhubarb, aconite root, aconite leaf, lemon-peel (fresh), opium (camphorated), columbo, angustura, cochineal, virg. snake-root, conium, arnica, and dilute alcohol, 2 hours. Of some organic substances: beta naphthol, santonin, with alcohol and chloroform, caused a delay of 4 hours; menthol and nitrite of amyl, 3 hours; croton chloral, chloral hydrate, vanillin, antipyrine, concent. sulph. ether, powdered gum-arabic, sweet spirits of nitre, acetic ether, benzole, salicin, over 2 hours; and ethyl alcohol, methyl alcohol, peraldehyde, urea, milk sugar, cane sugar, glycerin, santonin without alcohol, just 2 hours. Of fluid extracts: digitalis, wild cherry, buchu, cascara sagrada, buckthorn, guarana, hyoscyamus and colchicum root, 3 hours; aconite, valerian, taraxacum, liquorice, gentian, ergot, 2 hours.

The sulphates are the most active inhibitors of digestion. Among the alkaloidal salts the same was the case. Why sulphate of quinine ever came to be so universally prescribed in preference to the much better chloride, is hard to tell. The same is true of sulphate of morphine. In the chlorides, there is more of the active principle to the same weight, they are much more soluble in the gastric juice, and they retard digestion less. Next to the sulphates the nitrates are the great retarders. The bromides average lower than the chlorides, while the latter are about even with the iodides. Bromide of iron ranges high, like many of the non-organic salts. Dialysed iron and the solution of pernitrate of iron retarded respectively 150 and 110 minutes when fifteen centigrammes were used, which is lower than the run of their class. The salicylates are far above the benzoates, and the chlorates hinder much more than the chlorides. The general run of all agrees very well with the activity of their acids.

Antiseptics averaged high as retarders, and an approach is made by them in this power that runs nearly parallel with their germ-destroying power. Potassio-mercuric iodide, the most potent germicide known, was found to hold back digestion one hour when only one part in ten thousand was used. Bichloride of mercury required but one part in five thousand to retard fifteen minutes. While there are substances not known to be germicides that retard still more, still it is somewhat curious to find this class range so high, and at the same time occupying positions toward each other that suggest the order of their germ-destroying power. The molybdates seem to lead everything else as inhibitors, and they are the very best known precipitants of peptone.

Effects of Atropine and Whisky in Carbolic Acid Poisoning.

Dr. S. E. Bascom, of Salt Lake City, reports in the *Philadelphia Med. Times*, the following very interesting case of carbolic acid poisoning, treated successfully with atropine and whisky. He

says that he assisted Drs. Fowler and Potter in a perineorrhaphy, the laceration involving the sphincter ani and about two inches of the recto-vaginal wall.

The patient, Mrs. L., a lady 22 years of age, well nourished, quite obese in fact, had been married three years, but had given birth to but one child, eighteen months previous to date of operation, at which time the laceration occurred. The results of the operation were perfect, and on May 12 we visited our patient for the purpose of removing the sutures. When within a short distance of the house we were met by a sister of the patient, who informed us that the nurse, by mistake, had given the "wrong medicine," and on reaching the house we were told that the nurse had intended giving the patient potassium bromide, but instead of this had given a tablespoonful of pure carbolic acid. The mother seeing a mistake had been made, seized the spoon and placed it to her lips to make certain as to what had been given; the result was considerable excoriation of lips and tongue. When we reached our patient, within ten minutes of the time when the dose had been taken, she was unconscious, cyanotic, almost pulseless, respiration rapid and irregular, with mucous rales throughout both lungs. The mother had given her several ounces of olive oil. We felt the case to be hopeless, but, more to satisfy the friends than from any expectation of favorable results, we administered by hypodermic injection two minims of sol. atropiæ (gr. iv to ℥ i) and two drachms of whisky. Within ten minutes of the time the injections were given the pulse and respiration had improved decidedly, and the constitutional effects of the atropine were marked. In half an hour the patient became conscious, vomited freely, with hematemesis. Milk was given in teaspoonful doses at short intervals. Injections of brandy were continued, and later in the evening another dose of atropia. No saccharated calcium was used in the case.

By the afternoon of the following day Mrs. L. had so far recovered that we decided to remove the stitches, and, aside from the soreness of the mouth, some diarrhea, and more or less pain in the stomach and intestines (which was easily controlled by morphine), no unpleasant symptons manifested themselves. The carbolic acid was freely eliminated by kidneys and skin, the discoloration of the urine and odor of the perspiration being noticeable for several days. Within three days the patient was sitting up, and is now entirely well.—*Weekly Medical Review.*

What to do in Cases of Poisoning.

DR. WILLIAM MURRELL (*Medical Register*):

The Diagnosis of Cases of Poisoning.—How can you tell from what poison the patient is suffering? Sometimes nothing is more easy, whilst at others it is extremely difficult to arrive at a correct conclusion. A search for the bottle which contained the poison, or an inquiry of the nearest chemist, may, of course, help you, whilst a knowledge of the sufferer's previous habits, and of his disposition, may be of some assistance. The diagnosis is not always so easy as it looks at first sight. For example, you are called in to a patient who is evidently suffering from the effects of some narcotic poison, and on a table close at hand you find a hypodermic syringe and a bottle of morphine; you conclude at once that it is a case of morphine poisoning, but you may be wrong. The patient had intended to kill himself that

way, but dreading the trifling pain of the puncture, or not being expert in the use of the syringe, changed his mind at the last moment, took 300 grains of chloral and threw the bottle under the grate. (For hint as to mode in which death by suicide may be made to simulate death from natural causes, see death of Gammon, in Warren's "Ten Thousand a Year.") Do not forget the possibility of a number of poisons having been taken together. In one case a patient adopted a curious combination —a packet of Battle's Vermin Killer, two drachms of laudanum and then half a drachm of red precipitate. It is a good plan to make yourself acquainted with the composition of those patent medicines which possess active properties. There is no royal road to diagnosis, and the only way to arrive at a correct conclusion is to utilize your knowledge of the physiological action of drugs. The following lists may be of some use, but no attempt has been made to render them complete, and they must be taken as being merely suggestive.

You find the Patient Dead.—Prussic Acid (death in a few minutes at the outside); Cyanide of Potassium (usually kills very quickly); Strong Ammonia (may kill in a few minutes); Carbonic Acid Gas (if pure may kill almost at once); Carbonic Oxide; Oxalic Acid. Almost any active poison if given in a very large dose.

The Patient is Comatose.—Opium; Morphine; Alcohol; Chloral; Chloroform; Camphor.

The Patient is in a Condition of Collapse.—Strong Acids; Alkalies; Aconite; Antimony; Arsenic; Tobacco; Lobelia. Most poisons towards the last.

The Patient is Delirious.—Belladonna (noisy, pleasing delirium, "the insane root that takes the reason prisoner"); Hyoscyamus; Stramonium; Cannabis Indica; Alcohol; Camphor.

The Patient is Tetanised.—Nux Vomica; Strychnine (think of vermin killers); Antimony; Arsenic. There may be a condition approaching tetanus from excess of pain—in poisoning by strong Ammonia for example.

The Patient is Convulsed.—This may mean anything, the term being used vaguely. Antimony; Arsenic; Carbonic Oxide; Aconite. Strong acids, such as Acetic, or Sulphuric, or strong alkalies such as Ammonia.

The Patient is Paralyzed.—Physostigmine; Conium (from below upwards); Gelsemium; Aconite; Arsenic; Lead.

The Pupils are Dilated.—Belladonna and Atropine; Hyoscyamus; Stramonium; Opium (in last stage); Aconite; Alcohol; Chloroform (when taken in liquid form); Conium.

The Pupils are Contracted.—Opium (very strongly if a large dose); Physostigmine; Chloral (during sleep).

Skin Dry.—Belladonna and Atropine; Hyoscyamus; Stramonium.

Skin Moist.—Opium; Aconite; Antimony; Alcohol; Tobacco; Lobelia. Almost any poison during the stage of collapse.

Rash on Skin.—Belladonna (resembles rash of scarlet fever); Stramonium (much like the belladonna rash); Chloral (urticaria); Arsenic (eczema, or may be like scarlet fever); Antimony (pustular, like small pox, but rare); Opium (itching, followed by urticaria or papulous or roseolous patches, not common). Many other drugs excite cutaneous eruptions. For example, bromide of potassium and tar produce acne; copaiba, cubebs and salicylic acid give rise to urticaria, and iodide of potassium may bring out a crop of petechiæ. Croton oil, tartar emetic, sulphur, hydrastis

and arnica, are well known rash producers when applied locally. I have known croton-chloral hydrate given for whooping cough bring on urticaria. The discoloration of the skin resulting from the long continued administration of silver requires no detailed notice.

Smell of the Drug in the Breath.—Prussic Acid; Laudanum; Alcohol (brandy, whiskey, etc.); Carbolic Acid; Acetic Acid; Ammonia; Chloroform; Creasote; Iodine; Phosphorus; Camphor; Nitrobenzole. The smell is not always a reliable guide; for example, laudanum is not uncommonly taken in porter.

Mouth and Tongue Dry.—Belladonna and Atropine; Hyoscyamus; Stramonium; Opium.

Salivation.—Arsenic; Ammonia; Cantharides. Most drugs which produce a corrosive action on the mucous membrane of the mouth or œsophagus. Mercury, jaborandi and muscarin may also be mentioned.

Mouth Bleached.—Carbolic Acid (mucous membrane white and hard); Ammonia (epithelium coming off in flakes); Potash; Soda; Nitric Acid (white, soft, or yellow); Corrosive Sublimate. The numbness of the lips, mouth and tongue, produced by aconite will not be forgotten.

The Patient is Vomiting.—Arsenic (brown, mixed with blood); Antimony (white, stringy mucous, may be tinged with blood); Digitalis (vomited matter has a grass green color); Aconite; Colchicum; Colocynth; Ammonia (stringy saliva mixed with blood, fumes with hydrochloric acid); Phosphorus (vomited matter luminous in the dark).

The Patient is Purged.—Arsenic (continuous with much pain, stools mixed with blood); Antimony; Corrosive Sublimate (green in color, mixed with blood); Cantharides (blood and slime); Digitalis; Colchicum; Colocynth.

The Patient is Suffering from Colic.—Lead (about navel, eased by pressure); Copper; Arsenic; Colocynth.

The Patient is Suffering from Cramp.—Arsenic; Antimony; Lead.

The Drug was given Hypodermically.—Morphine; Atropine; Strychnine.

The Poison was Inhaled.—Ammonia; Prussic Acid; Chloroform; Ether; Benzine; Carbonic Acid Gas; Carbonic Oxide; Coal Gas; Sewer Gas; Cesspool Gas and Emanations.

Poisons commonly used for Murder.—Arsenic; Antimony; Aconite; Digitalis; Opium; Strychnine; Prussic Acid.

Poisons commonly employed for Suicidal Purposes.—Opium and its preparations (commonest of all poisons); Oxalic Acid; Rat Paste; Prussic Acid; Chloral; Sugar of Lead; Strychnine. Patent medicines of all kinds unintentionally.

Drugs used popularly as Abortifacients.—Ergot; Rue; Gin and Pennyroyal; Savine; Bitter Apple (colocynth, very popular); Hickery Pickery (hiera picra, or holy bitter, a mixture of four parts of aloes and one of canella bark); Spanish Fly (cantharides); Yew Tree Tea; Green Tea in large quantities; Quinine is often supposed to exert a specific action on the pregnant uterus, but that it does so I do not for one moment believe, given, that is to say, in ordinary doses for its tonic action. I have now under treatment a woman who is at least eight months advanced in pregnancy. Last week she had four grains of good sulphate of quinine three times a day, and this week she has six grains, three times a day, but there has been no action on the uterus. I should say that two five-grain compound colocynth pills at bed-time would be far more likely to do harm. Actæa Racemosa (cimicifuga

racemosa) is sometimes said to be an abortifacient, but there is very little truth in the statement; at all events, half a drachm of the tincture three times a day is safe enough even in the later months of pregnancy. Pulsatilla is supposed to be capable of producing abortion, but this again rests on very imperfect evidence. "A handful of parsley chopped fine in a bottle of gin, allowed to stand a week, and a wine-glassful three times a day."—*Hospital Patient.* What truth there is in this I do not know, but the *rationale* is clear enough, parsley contains apiol, which is a powerful oxytocic. Jaborandi was at one time supposed to exert a powerful action on the uterus, but the idea is now exploded.

Indigenous Poisonous Plants.—Woody Nightshade (solanum dulcamara); Garden Nightshade (solanum nigrum); Deadly Nightshade (atropa belladonna); Aconite, Monkshood, Wolfsbane, or Blue Rocket (aconitum napellus); Foxglove (digitalis purpurea); Spotted Hemlock (conium maculatum); Arum (arum maculatum); Colchicum (colchicum autumnale); Bryony (bryonia dioica); Henbane (hyoscyamus niger); Fly Agaric (amanita muscaria); Mezereon, or Spruge Olive (daphne mezereum); Laburnum (cytisus laburnum): and a host of others. These will be found figured in Stephenson and Churchill's *Medical Botany*, and in Bentley and Trimen's *Medicinal Plants.*

The Spleen as a Therapeutic Agent.

At the suggestion of Prof. Maragliano, Dr. Predazzi (*Bollec. della R. Accad. Med. di Genova*) has experimented with the spleen (of what animal it is not stated), reduced to a pulp, as a blood-forming agent, using this mixture: Spleen pulp, 2,250 grains; emulsion of bitter almonds, 5,250 grains; brandy, 750 grains. The whole amount was given in the course of a day, with the meals, to each of five chlorotic patients. The diet consisted of soup with rice, macaroni, bread, etc., at 8 o'clock in the morning; another soup with four ounces of meat, bread, and a glass of wine at noon; and more soup at 6 o'clock in the evening. In from eight to twenty-five days there were observed a rapid improvement of the general conditions, with an increase of the red blood-corpuscles; a prompt and lasting subsidence of previous functional disturbances of the nervous system, the digestive tract, and the circulatory and urinary apparatuses; an increase of arterial tension; and a gain in weight. (We agree with Dr. Breitung, who prepared an abstract of Predazzi's article for the *Deutsche Medizinal Zeitung*), that it is difficult to say how far the improvement noted can properly be ascribed to the use of the spleen pulp.—*New York Medical Journal.*

The Treatment of Pleurisy with Effusion by Hay's Method.

Professor William Osler, in a clinical lecture, reported in the *Medical News*, calls especial attention to the treatment of pleural effusion, as well as general dropsies—renal or cardiac—according to the method of Professor Matthew Hay, of Aberdeen.

The method consists in giving a concentrated solution of a saline carthartic, at a time when there is very little fluid in the intestines, thus causing a rapid concentration of the blood, owing to the abstraction of water to form the intestinal secretion excited by the salt.

Professor Osler orders the patient to take nothing after the evening meal, and then, an hour before breakfast, administers 4 to 6 drams of magnesium

sulphate, in 1 ounce of water. The patient must not drink after it. This will usually produce from four to eight watery stools, without pain and discomfort, Attention is also called to another point, namely, that the salt also acts as a diuretic.—*Med. and Surg. Rep.—Md. Medical Journal.*

Positive Sign of Death.

Dr. Babcock in a letter to the *Ther. Gaz.*, gives the following sign of death, suggested by Magnus. of Breslau :

Everybody knows that when the circulation positively ceases the man is dead. No matter how profound the coma or trance, no matter how death-like the lethargy, some circulation *must* continue, be it ever so sluggishly.

When it stops once, resuscitation is impossible.

Dr. Hugo Magnus says: All that one has to do, therefore, is *to tie a string firmly around the finger of the supposed corpse.* If there is the least spark of life left,—that is, if the blood circulates at all—the whole finger, from the string to the tip, will gradually turn a *bluish red*, from the engorgement of the veins. Nothing else, no post-mortem infiltration, can be mistaken for this appearance. I can detect no flaw in this simple and exceedingly practical means of determining whether a person is dead or not. How many are buried alive, no one can tell, but it is a terrible calamity, and this "Positive sign of death" should be known by all.

Left-Handedness.

Dr. Louis Jobert has published a work on the cause and frequency of left-handedness. No purely left-handed race has ever been discovered, although there seems to be a difference in different tribes. Seventy per cent. of the inhabitants of the Pendjab use the left hand by preference, and the greater number of the Hottentots and Bushmen of South Africa also use the left hand in preference to the right. Dr. Marro, as a result of his study of criminals, has found that from fourteen to twenty-two per cent. of those who have been convicted of crime were left-handed, the highest ratio among people of all classes being only nine in the hundred.—*Medical News.*

Iodism Attended with Pemphigus and Terminating in Death.

Dr. Franz Wolf (*Berl. Klin. Woch.*) publishes a singular and interesting case of fatal iodism. The patient, a female, aged forty-eight, had been suffering from nephritis for three months. She improved, under suitable treatment, to a certain point, at which her condition remained stationary in spite of continued energetic treatment. As pilocarpine, which had been administered, was beginning to disagree with her and to lose its effect, a mixture of iodide of potassium was ordered four times daily, each dose containing gr. vijss. of the iodide. In three days afterwards violent symptoms of iodism set in, attended with an extensive skin eruption, having all the characters of pemphigus. None of the secretions or excretions gave any reaction of iodine, there was no diarrhœa, the temperature was normal, and the pulse was 96. The iodide was at once discontinued, means were employed to eliminate the drug from the system, and remedies employed to sustain the patient's powers. The patient, however, succumbed in five days, passing gradually into a state of collapse.

The author says that he knows only of one other case of fatal iodism attended with bullous exanthem, and which is published by Morrow. He quotes the

following from the latter observer: "It is a well attested clinical fact that many of the severer forms of iodic eruption occur in patients who are found to be suffering from renal inadequacy and cardiac lesions."(A statement well worth bearing in mind, in view of the frequency with which iodide of potassium is given in kidney affections.) An autopsy in this case, unfortunately, was not permitted.—*N. Y. Medical Journal.*

Ten Commandments for Bathers.

The following rules are from the *Rundschau* (Prag):

1. When suffering from violent excitement do not bathe.

2. When suffering from suddenly occurring or from continued illness, do not bathe.

3. After sleepless nights or excessive exercise, do not bathe, unless you first rest a few hours.

4. After meals, and especially after taking alcoholic liquors, do not bathe.

5. Take your time on the way to the bathing-house or beach.

6. On arriving at the beach inquire about depth and currents of the water.

7. Undress slowly, but then go at once into the water.

8. Jump in head first, or, at least, dip under quickly, if you do not like to do the first.

9. Do not remain too long in the water, especially if not very robust.

10. After bathing, rub the body to stimulate circulation, and then dress quickly, then take moderate exercise.—*Nat. Druggist.*

DISEASES OF THE NERVOUS SYSTEM.

An Analysis of the Ocular Symptoms Obtainable in Epilepsy in the Male Adult.

DR. CHARLES A. OLIVER (*Medical and Surgical Reporter*):

The clinical material for these observations was obtained at the State Hospital for the Insane, at Norristown, Pennsylvania. The report embraces a study of all the ophthalmic symptoms that could be gotten from fifty male adult epileptics, without reference to any past etiological factor or present mental condition. This method was pursued for several reasons, most prominent being:

1. A special form of symptomatic disease was taken in preference to any mental condition, because similar mental states may be present in the many and *bizarre* forms of nerve-lesions, making and hiding the true significance of the objective symptoms peculiar to any one disease to such an extent as to render differentiation impossible.

2. A definite variety of disease was chosen, so as to avoid obtaining mere percentages of the ophthalmoscopic sign (which, as a rule, has been limited to an arbitrary designation of the tint of the optic disk and the size of the retinal vessels) of the total number of cases occurring in one asylum—practically given if at all correct, a *résumé* of the different varieties of optic-nerve color and retinal-vessel size of the gross amount of residents of that asylum; an answer which is liable to alter at any time through change of number of patients and character of mentality,or to be totally diverse from the results obtained by another observer placed in a different situation.

3. A large percentage of similar cases was taken. This was done so that the different mental states which are seen during the course of any *one* disease might be united into a theoretical case, which would represent a typical example of the physical and physiological conditions of that disease.

4. Males were used. This is important, for, by the exclusion of the female subject, any errors that might

arise from additional ocular changes dependent upon diseases which are peculiar to the sex are avoided.

It may be interesting to know that native American stock has been used. There is nothing absolutely important in this selection, because, by reason of many obvious causes, a true American type of man has not as yet been established among us; yet it was intentionally done, so that results obtained from subjects born on American soil could be contrasted and compared with statistics of foreign born population, in order to see whether the data would exhibit any decided peculiarity in ratios.

OBSERVATIONS AND CONCLUSIONS.

1. Direct vision for form, as a rule, normal in both emmetropia and corrected ametropia.

2. Accommodative action normal in due proportion to age and refractive error.

3. Visual fields for form and color reduced from one-third to one-twentieth of normal areas.

4. Visual fields for form and color regularly diminished without any indentations or scotomata.

5. Order of color field follows the regular physiological sequence, without transposition or reversion.

6. Subnormal color perception to a slight extent, as evidenced by faulty selection of delicate tints and shades containing low percentages of green and red.

7. Pupils are, as a rule, equal in size and alike in shape.

8. Irides freely and equally mobile to light stimulus, accommodation and convergence.

9. Extra ocular motion intact in all directions. The presence of insufficiency of the interni in the majority of cases is readily explained by association with existing H N Ah, and probably has no relation to the epileptic condition.

10. Optic disk superficially overcapillary, with a decided grayness in its deeper layers, showing a low grade of incipient optic nerve degeneration.

11. Scleral ring rather more sharply cut and broader, especially to the temporal side of the disk, than in the healthy eye, this being probably due to a slight shrinkage of lowered nerve-tissue.

12. Fibre-layer of retina increased in thickness, as evidenced by dense and coarse massings of striation extending in all directions from the disk, this being more particularly marked in the superior and inferior proportions of the eye-ground, even hiding the edges of the disk itself in many instances.

13. Retinal vessels large in size and carrying rather dark colored blood, this being more pronounced than usual with the veins.

14. Retinal veins exceedingly tortuous, and in a few instances pulsating.

15. Retinal arteries frequently wavy and sometimes tortuous, especially the temporal and macular twigs.

16. Retinal lymph channels visible in the majority of cases, particularly seen along the larger vascular distributions and at the vessel entrance as glistening and yellowish white opacities.

17. No other visible changes of any significance throughout the eye-ground, except a granular condition of the choroid in the macular region.

In addition, it may be mentioned that, as far as possible, nearly all of the deep and superficial reflexes were obtained throughout the body. These, as a rule, were above normal, and presented some curious anomalies, which will be reserved for a later publication.

As was to be expected among this class of patients, many of the subjective signs were negative ; but, withal, sufficient data have been produced to warrant proper conclusions in this direction. The results obtained from the study made of the visible ocular changes are of special value, and may be cited as of sufficient importance to be useful in diagnosis.

Hysteria.

℞. Ammon. bromid., potass. bromid., āā ʒ ij ; ext. glycyrrhiz. fl., syr. simplicis, āā ʒ iss; glycerinæ, q. s. ad ℥ iv. Sig.—Teaspoonful ½ hour before meals and at bed time.

The above may be given oftener during a paroxysm.—*St. Louis Medical and Surgical Journal.*

DIGESTIVE TRACT.

Management of Simple Constipation.

Sir Andrew Clark gives the following instructions for the management of simple constipation.

1. On first waking in the morning, and also on going to bed at night sip slowly from a quarter to half a pint of water, cold or hot.

2. On rising, take a cold or tepid sponge bath, followed by a brisk general towelling.

3. Clothe warmly and loosely ; see that there is no constriction about the waist.

4. Take three simple but liberal meals daily ; and, if desired, and it does not disagree, take also a slice of bread and butter and a cup of tea in the afternoon. When the tea is used it should not be hot or strong, or infused over five minutes. Avoid pickles, spices, curries, salted or otherwise preserved provisions, pies, pastry, cheese, jams, dried fruits, nuts, all coarse, hard, and indigestible foods taken with a view of moving the bowels, strong tea, and much hot liquid of any kind, with meals.

5. Walk half an hour twice daily.

6. Avoid sitting and working long in such a position as will compress or constrict the bowels.

7. Solicit the action of the bowels every day after breakfast, and be patient in soliciting. If you fail in procuring relief one day, wait until the following day when you will renew the solicitation at the appointed time. And if you fail the second day, you may, continuing the daily solicitation, wait until the fourth day, when assistance should be taken. The simplest and best will be a small enema of equal parts of olive oil and water. The action of this injection will be greatly helped by taking it with the hip raised, and by previously anointing the anus and the lower part of the rectum with vaseline or with oil.

8. If by the use of all these means you fail in establishing the habit of daily or of alternate daily action of the bowels, it may be necessary to take artificial help. And your object in doing this is not to produce a very copious dejection, or to provoke several smaller actions ; your object is to coax or persuade the bowels to act after the manner of nature by the production of a moderate more or less formed discharge. Before having recourse to drugs, you may try, on waking in the morning, massage of the abdomen, practiced from right to left along the course of the colon ; and you may take at the two greater meals of the day a dessertspoonful or more of the best Lucca oil. It is rather a pleasant addition to potatoes or to green vegetables.

9. If the use of drugs is unavoidable, try the aloin pill. Take one half an hour before the last meal of the day, or just as much of one as will suffice to move the bowels in a natural way the

next day after breakfast. If it should produce a very copious motion, or several more small motions, the pill is not acting aright; only a fourth, or even less should be taken for a dose. When the right dose is found it may be taken daily, or on alternate days, until the habit of daily defecation is established. Then the dose of the pill should be slowly diminished, and eventually artificial help should be withdrawn. The aloin pill is thus composed: ℞. Aloinæ, ½ gr.; extr. nucis vom., ½ gr.; ferri sulph., ½ gr.; pulv. myrrhæ, ½ gr.; saponis, ½ gr.; fiat. pil. i.

If the feces are dry and hard, and *if there is no special weakness of the heart*, half a grain of ipecacuan may be added to each pill. Should the action of the pill be preceded by griping and the character of the action be unequal, half a grain of fresh extract of belladonna will probably remove these disadvantages. If the aloin pill gripes, provokes the discharge of much mucus, or otherwise disagrees, substitute the fluid extract of cascara sagrada, and take from five to twenty drops in an ounce of water either on retiring to bed or before dinner. And when neither aloin nor cascara agree, you may succeed by taking before the mid-day meal two or three grains each of dried carbonate of soda and powdered rhubarb.

The extract agent employed for the relief of constipation is of much less importance than its mode of operation. If, whatever the agent may be, it succeeds in producing after the manner of nature one moderate formed stool, it may be, if necessary, continued indefinitely without fear of injurious effects. But, treated upon physiological considerations, I have the belief that in the great majority of cases simple constipation may be overcome without recourse to aperients.—*Lancet.*—*N. Y. Medical Jour.*

Thymol in Tape Worm.

Dr. Numa Campi calls attention in *Il Raccoglitore Medico* (*Buffalo Med. Journal*) to the use of thymic acid, or thymol in the treatment of tape worm. This substance is derived from one of the *labiatæ*, or thyme, which is common throughout France and Southern Italy. The plant contains a volatile substance and liquid essence called thymine, which is isomeric with turpentine, which is also a tæniafuge. It is doubtless to this volatile substance that thymol owes its anthelmintic properties, although the tannin and a bitter principle are of importance. Thymic acid, or thymol, when perfectly pure, resembles camphor, but is much more transparent, and has a glassy appearance.

It is very slightly soluble in water, but can be readily dissolved in alcohol, in ether, and in alkaline solutions. It has an acrid, warm, somewhat persistent bitter taste, and the odor of thyme.

We know but little of its biological effects. Lewin, a few years ago, claimed that it had valuable germicidal and antiseptic properties, and was four times more powerful for those purposes than carbolic acid. Bucholtz has recently made a comparative study of its germicidal properties, and finds that a solution of 1 part to 2000 will prevent the growth of bacteria, being surpassed only by bichloride of mercury, while benzoin, carbolic, salicylic, and boric acids, creasote, the sulphates of quinine, copper and zinc, and alcohol are all inferior in their antiseptic powers. The action of thymol, moreover, is not limited to micro-organisms, but affects the higher animals and man. Lewin discovered that frogs placed in weak solutions of thymol became insensible, and lost the power of reflex action to mechanical and chemical excitation, while the electrical irritability

of the muscles and nerves remained intact. Leucocytes are rapidly attacked by thymol and lose their motility. From the description of the properties of thymol it is not difficult to conceive that it may be usefully employed in the treatment of tape-worm, especially since the experiments of Federici have shown that it is very effective for the destruction of the *anchylostoma duoœnalts*—the parasite which produces the terrible infirmity called Gottardo's disease, or miners' anæmia. But in order to succeed with a remedy, its not enough to know its physiological action, we must also know how to administer it; posology is undoubtedly the most important and the most delicate part of the practice of medicine. This simple truth, so generally recognized by medical writers, must be particularly regarded in the use of anthelmintics, the effectiveness which depends so largely on the mode of administration.

Dr. Vanni, in the first case of tænia treated by thymol, gave 3 grammes (gr. xlv) in divided doses through the day, and 20 grammes (℥ v) of castor oil at night, but succeedcd in obtaining only five or six segments of the worm. On the following day, however he administered 6 grammes (℥ iss) of thymol, divided into twelve doses, to be taken every fifteen minutes, and at the end of the third hour the entire worm, including the head was expelled.

Dr. Campi adopted the following method with his first case: In the evening he ordered 20 grammes (℥ v) of castor oil to be taken fasting; in the morning he prescribed 8 grammes (℥ ii) of thymol, divided into twelve doses, one to be taken every quarter of an hour; twenty minutes after the last dose had been swallowed, another 20 grammes (℥ v) of castor oil were taken. A few minutes after a *tænia medio-canellata* three and a half metres in length was evacuated, the head being dead.

It is very important during the administration of the thymic acid to give the patient some cordial and stimulant; cognac and rum will be found suitable. Thymol is very depressing, according to the experiments of Husemann, and this will explain its action on the nervous system. Even with small doses the pulse becomes small and frequent, the respiratory movements slow, and the temperature is lowered. These effects, however, are easily and promptly counteracted by the use of stimulants.

Dr. Campi also calls attention to another fact. Husemann and Lewin say that thymol should be administered in small doses. On account of its caustic action, they claim that there is danger of producing digestive disturbances and gastro-enteritis. They recommend two or three teaspoonfuls of a one-half per cent. solution during the day. While it is true that we can never be too prudent in the practice of medicine, these doses are too fearfully homœopathic, when we consider that 8 grammes of thymic acid may be given in 2 hours and a half without producing the least gastro-intestinal disturbance.

The number of remedies recommended prove that none are reliable. The tæniafuges have left the physician and gone to the druggist, who sells his infallible vermifuges as he does his hair-restorers. We have only to ask any old practitioner about the use of anthelmintics to learn that this class of remedies, is exceedingly unreliable. Most of these remedies, moreover, produce grave gastro-intestinal disturbances; and we are not surprised that Bamberger questioned which had done mankind most harm, the tape worms or the tæniafuges. Dr. Campi recommends to the profession the use of thymic acid as a tæniafuge.

1. Because this remedy, with the exception of a depressing effect, easily counteracted, produces no disturbance of the stomach or intestines.

2. On account of the rapidity and simplicity of its action, compared with other remedies, which require *courses of treatment*, divided into three periods,—the preparatory, the expulsive and the consecutive.

3. On account of the advantages it offers of being both a tæniacide and a tæniafuge.

4. Because in case of an error of diagnosis the remedy would produce an efficient purgation and disinfection of the alimentary canal.

5. Because it is reasonable to suppose that since thymic acid succeeds in expelling the *tænia medio-canellata*, the worm which above all others resists the action of anthelmintics, the same remedy will be of service in expelling all other varieties of flat worms.

6. Because we have, as yet, always been successful with the use of thymic acid, and have probably found a real specific, which, up to the present, did not exist.

DISEASES OF THE URINARY ORGANS.

On Some Forms of Albuminuria Not Dangerous to Life.

The gravity of albuminuria, as a symptom, has been differently estimated at different times, but gradually it has come, in recent years, to be known that albumen often appears in the urine, even in considerable quantity and very persistently, in persons free from important organic malady. Indeed, it may be maintained that some patients with persistent albuminuria are yet eligible to life insurance at little, if at all, above ordinary rates. It is important to know the characteristic features of these non-dangerous albuminurias.

Dr. Grainger Stewart, in the January issue of *The American Journal of Medical Sciences*, studies the following varieties :

1. Paroxysmal albuminuria.

2. Dietetic albuminuria.

3. Albuminuria from muscular exertion ; and

4. Simple persistent albuminuria ; and illustrates each with reports of cases which are markedly characteristic.

The diagnostic features of paroxysmal albuminuria are the sudden and copious occurrence of albumen in the urine with numerous casts, the process lasting only a short time and occurring at intervals with or without a perceptible exciting cause. The exciting cause, according to Dr. Stewart, is irritation of the kidneys from blood changes. The treatment should be directed, on the one hand, to the avoidance or diminution of renal irritation ; and, on the other, to the regulation of the hepatic function, and of the chemical processes in the body. Happily, the attacks are usually of brief duration—he has never known them permanently injurious.

Dietetic albuminuria is a variety which has long been more or less distinctly recognized. Some people suffer from it whenever they indulge in certain articles of diet. In some cases one kind of food, in others many, require to be proscribed ; cheese, pastry, and eggs are among the more common offenders. Of this group our present knowledge does not suffice to afford a satisfactory explanation.

Those cases of *albuminuria following upon muscular exertion*, Dr. Stewart is disposed to attribute to a general change in vascular activity. The principal indications for their treatment are met by rest, judicious diet, and attention to the general health. Those remedies which act upon the muscular fibres of the vessels deserve trial.

The features of *simple persistent albuminuria* are the constant presence of albumen, usually in small quantity, unattended by tube casts, diminution of urea, by increased muscular tension, cardiac hypertrophy, or other consequence of renal malady, persisting for a period of months or years, and little influenced by diet or exercise.

Dr. Stewart concludes his study with a consideration of the prognosis of these groups.

Microscopic Examination of Urinary Deposits.

Dr. C. G. Jennings (*Microscopy*):

The urine should be placed in a vessel that will enable the sediment to fall into as small a space as possible, covered to exclude dust, and set aside in a moderately cool place for ten or twelve hours. The best vessel for the purpose is a glass cylinder one inch in diameter and about six inches long. The urinometer glass, or a large test-tube on foot, answers the purpose well. The conical wine glasses, often recommended, are open to the objection that the sediment collects all along the sides as well as at the apex of the cone. When the sediment is scanty, and when a careful search for casts, etc., is demanded, the urine containing the sediment may be taken from the bottom of the cylinder with a pipette, and transferred to a small test tube and allowed to stand for a few hours longer. The deposit in the bottom of this tube will be so concentrated that no object in it can well escape scrutiny.

A few drops of the urine containing the sediment are taken up in a pipette and a drop deposited on the centre of a slide, a thin cover-glass placed over it and the superfluous urine absorbed with a piece of blotting paper. The top, middle, and lower part of the sediment should be successfully examined to bring under observation the constituents having different specific gravities.

A cupped slide may be useful in searching a scanty deposit, but the examination is hindered by the depth of the fluid and the constant focusing of the microscope which is necessary. I find it more convenient to examine a number of specimens on a flat slide. A drop of nuclear staining fluid, as ammonio-carmine, added to the drop of urine greatly facilitates the examination and well repays one for the little extra trouble. Casts, epithelial cells, organic debris, etc., take the stain and contrast well with the unstained crystals. For the detection of delicate hyaline casts this staining is of great value.

For the examination a good ½ in. objective, with a B eye piece, answers the purpose fairly well, but for the resolution of fine crystals and delicate organic structures a moderately good 1-5 in. or 1-6 in. objective is to be preferred.

A little procedure that will be found very useful, particularly for the study of casts, is to place the tips of the two index fingers gently on the cover glass, and, with the object in view, to move the glass slightly to and fro. By this movement a suspected cast or a crystal may be rolled over and examined on all sides. The cylindrical shape of many delicate casts can be shown only by this method. It is delightful to note how this little manipulation enables one to determine the character of a doubtful object.

Various extraneous matters, as particles of dirt, fibers of cotton, wool silk, etc., find their way into the urine, and the inexperienced student is always first attracted and puzzled by them. A little study soon gives such familiarity with them that they are passed over without a thought.

CONSTITUTIONAL DISEASES.

Treatment of Typhoid Fever by Corrosive Sublimate.

In the *Deutsches Archiv. für Klinische Medicin*, GLASER, of Hamburg, reports the results obtained in twenty-three cases of typhoid fever by the use of corrosive sublimate. The cases selected were those in which the diagnosis was plain, and which were of at least moderate severity, and which had not advanced so far that medication was useless. The number of cases treated was too small to be of value in statistics of mortality, but large enough to give a result as to the effects of the drug upon the principal symptoms of typhoid. The following were the results obtained :

1. In twenty-three cases five deaths, a mortality of twenty-one per cent.

2. Four cases showed a fall in temperature to the normal before the nineteenth day of illness, on the thirteenth, fifteenth, sixteenth and nineteenth days respectively, after sublimate was given on the sixth, eighth and tenth days.

Two parallel cases which had no sublimate showed a fall of temperature on the fifteenth and sixteenth days.

Six cases showed a fall of temperature to the normal on the twentieth to twenty-third days, after two doses of sublimate on the eighth day, and on the ninth, tenth, eleventh and fifteenth days, one dose.

Five parallel cases, without the sublimate treatment, showed similar defervescence.

In eight further cases the fall to normal temperature came later ; two on the fifteenth day, one on the sixteenth, two on the seventeenth, one on the eighteenth, one on the twentieth, one on the twenty-second day after taking the sublimate.

3. Sublimate had no influence upon the condition of the tongue ; in eight cases it remained dry, and did not alter until defervescence occurred.

4. The roseola of typhoid was in eleven cases aggravated by sublimate to such a degree that the face was affected, and the cases resembled measles.

5. The general condition of the patient was not in the least improved.

The influence of the treatment on the duration of the illness and its relapses is best shown by the following table :

Day of administration.	Duration of fever.	Day of administration.	Duration of fever.
6..	60 days.	10..	51 days.
	66 "		74 "
7..	51 " Relapse.		89 " Relapse.
8..	41 "	11..	51 "
	48 "	12..	64 "
	90 "	13..	59 "
9..	44 "	15..	51 "
	45 "		
	64 " Relapse.		

The question of greatest interest in these reports is the dosage and the bearing of the cases upon the possibility of effectually destroying the bacillus of typhoid fever in the organism. When the amount of blood (at one-thirteenth of body-weight) to be disinfected is considered, we find that using a solution of sublimate, 1 to 4000 or 5000, its proportion to the blood would make the actual proportion of mercurial to the blood 1-10400, which is a solution inert as a parasiticide. In the series of cases cited it was given in eight doses *pro diem*, the total given being three-tenths of a grain in a day and a half, the solution used being 1 to 4000 or 5000.

The series illustrates in an interesting manner the difficulty of practically disinfecting the blood while still within the body, without at the same time destroying life.—*Therapeutic Gazette.*

A Case of Acute Articular Rheumatism and Typhoid Fever Occurring Simultaneously.

DRS. SPILLMAN and GANZINATTY report a case in a man aged thirty-six, and

generally healthy. In reviewing the case they analyse it as follows:

1. Occurring simultaneously with a pseudo-rheumatism of typhoid nature and infectious, and in which the rheumatic element bears a secondary relationship to the typhoid infection, there can develop an association of acute articular rheumatism and typhoid fever.

2. The two diseases develop at the same time, the rheumatism preceding the typhoid fever, or following and outlasting it.

3. The rheumatic manifestations remain simply fluctuating; joint suppuration does not occur as in secondary and infectious joint swellings.

4. The rheumatic manifestations which are but little affected by sodium salicylate, yield to antipyrine, whose analgesic effect is, however, brief and intermittent.

5. The typhoid fever manifests its ordinary symptoms; its duration is the usual one, its fever curve is modified by the rheumatic exacerbations and by the administrations of antipyrine.—*Revue de Médecine.*

Ward Tonic, Charity Hospital, Fothergill's.

℞. Quiniæ sulphatis, gr. 16; strychniæ, sulphatis, gr. ½; potassi citratis, gr. 90; tinct. ferri chloridi, fl. dr. 5; syrupi, fl. ℥ 1; aquæ, q. s. ad fl. ℥ 4. Dissolve and mix. Dose: a teaspoonful.—*Medical World.*

Treatment of Rheumatism in the Philadelphia Hospital.

Dr. James Tyson uses both salicylic acid and salicylate of sodium, but recently has confined himself rather more to the former. He gives it preferably in the form of a compressed five-grain pill, of which two are ordered every two hours until the symptoms yield. This generally within twelve hours, and almost always within twenty-four. After the pain has decidedly subsided he diminishes the dose one-half, or increases the interval to four hours. If the administration is cautiously continued for a week or ten days, he finds that it is comparatively seldom that relapses occur. Sequelæ and complications are less frequent by this than by the older methods of treatment. It is comparatively seldom that anodynes are required as adjuncts to relieve the pain, but when they are, the hypodermatic use of morphia is promptly efficient.

In giving the salicylate of sodium, he prescribes ten to fifteen grains every two hours, or half as much every hour until relief is obtained. Its sickening taste in solution is a great drawback to its use, but it, too, may be given in five grain compressed pills, although the larger bulk makes this method of administration inconvenient.

When salicylic acid or its salts fail, he finds that flying blisters to the painful joints are the next most efficient measure, and their effect upon the pain is usually very prompt.

Dyscrasic cases are, of course, treated with iron, quinine, and an abundance of nourishing food, and flannel garments worn next to the skin.

In muscular rheumatism salicylic acid is seldom efficient, although Dr. Tyson often uses it with results which lead him to believe that it is not totally without effect. By far the most satisfactory measure is dry heat, applied most conveniently by the hot water bag.

In the treatment of chronic rheumatism, Dr. Tyson has much more confidence in the use of local measures and manipulation. Salicylic acid is also sometimes useful, but the effect is more frequently temporary.

Dyscrasic conditions are treated with cod-liver oil and iron, which alone are

sometimes curative. Counter-irritation by blisters and strong liniments are sometimes useful adjuncts, but are in no degree equal to manipulation.—*Medical News.*

Muscular Rheumatism Due to the Use of Tobacco.

I have met a great many cases of muscular rheumatism (says Dr. EDWARD ANDERSON, in the *Maryland Medical Journal*) due to the use of tobacco in some form, mostly in the shape of snuff placed under the tongue. All remedies were unavailing whilst the use of the weed was indulged in. Every practitioner, I think, on meeting with a case of the above disorder, should inquire as to the tobacco habit, and correct it, if possible.—*Medical and Surgical Reporter.*

Parenchymatous Injections of Quinine in Ague Cake.

PROFESSOR F. FAZIO relates in the *Rivista Clinica e Terapeutica*, the case of a woman, thirty years of age, who had suffered from malarial fever, and who had also marked hypertrophy of the spleen. The tumor extended from behind the margin of the ribs to a line drawn on a level with the anterior superior spine of the illium. It was determined to attempt a reduction in the size of the spleen by means of parenchymatous injections of quinine. The instrument used was the ordinary hypodermic syringe provided with a longer and thicker needle than usual. The bi-sulphate of quinine was employed, and thirty-two injections of each 4½ grains were made, care being taken to make the successive punctures at some distance from each other. The result of treatment was a reduction of over one inch in the length of the tumor. The injections were not followed by pain or by any other unpleasant symptoms. The experiment was interrupted by the departure of the patient from the hospital, but Dr. Fazio believed that the results obtained were sufficiently encouraging to warrant further trials of the method.—*Medical Record.—Md. Medical Journal.*

For Diphtheria.

℞. Sodæ benzoat, ʒ j potass. chlorat. ʒ ss; Potass. bromidi, gr. xv; glycerinæ, ℥ j; aq. dest. ad. ℥ jv. One teaspoonful every hour. This treatment to be preceded by an emetic, and accompanied by carbolic inhalations, and the constant application of a saturated solution of benzoate of soda around the throat. This treatment comes recommended from the hospitals of Buenos Ayres.—*Ibid.*

Diphtheria.

DR. A. J. BURNS, writing to the *Medical World* says:

I adopted the following treatment in 1863, during an epidemic of diphtheria. It proved so successful with me and other physicians to whom I gave it, that I have continued to use it ever since. I was very successful with it in an epidemic in Chili, South America, in 1878–9.

I begin the treatment with a dose of calomel, 5 grains, and follow with: ℞. Potass. chlorat. pulv., ℥ ss; acid hydrochloric, f. ʒ j.; M.—Put the chlorate in a bottle, pour in the acid, and as soon as the gas begins to form, dash in water ℥ vj. This fixes the gas and you thus get chlorine water, an excess of the chlorate remaining; then add quin. sulph. ʒ ss. S.—A tablespoonful every four hours in half a glass of cold water. Give tr. ferri chlor. ʒ ss–ʒ j in water every four hours, thus alternating the medicines every two hours. I think that this is better than giving them all together. These are doses for adults. Paint the

fauces, etc., with *pure* lemon juice three times daily, or where it is not to be had, with: ℞. acid hydrochlorici, mellis, āā f. ʒ j. M. S.—Apply three times daily.

Spraying the throat with vinegar and hot water several times daily is grateful to most patients. I pay attention to the state of the bowels, kidneys, etc., and sustain strength by milk, beef tea, milk punch, brandy, etc. I never change the bedclothes, nor the clothes of the patient during the attack.

Diphtheria.

Dr. J. E. Hams, writing to the *Medical World*, says :

Leaving the chemical changes that follow in the mixing of the following ingredients, out of the question ;—and by the way I would like to know the exact changes that do take place,—I not only use it internally, but locally to the affected part, either as a gargle or by atomizer; I trust it will be given a trial, and will be anxious to hear whether it meets with the success it has at my hands. ℞. Sodii hyposulph, ℥ ss ; tinct. iodi comp., f. ʒ ss; tinct. ferri chloridi, f. ℥ ss; spec. tinct. aconit, f. ʒ ss; aquæ destillat, f. ℥ v ; glycerin. puræ, f. ℥ ij. Mix. Sig.—One-half to two teaspoonfuls every one, two or three hours, according to height of fever, severity and age. At the same time using two teaspoonfuls as a gargle or spray, every hour or two. When better, give the medicine internally, and use locally three or four times a day.

I have used the above not only in all stages of diphtheria, but in other affections of the throat.

An Improved Method for Compressing Air.

Dr. E. L. Oatman, of Nyack, N. Y., sends to the *N. Y. Medical Record* an account of a simple and apparently very effective method of compressing air for use in atomizing fluids. In the cellar or basement a common galvanized iron range boiler is placed, and connected by two pipes, entering it below, with the main water supply and with the drain. At the upper end a tube is attached, which passes up to the physician's office. All the pipes are fitted with stop cocks. To charge the reservoir, this air tube and the discharge pipe are closed, while the supply pipe is opened. The water now rushes in, and places the contained air under a high pressure. When the water ceases to flow, the supply pipe should be closed. The compressed air may now be used when required by opening the air pipe, the stop cock of which is placed in the office. When the pressure is exhausted, the reservoir may be emptied by opening both the air tube and the discharge pipe, and the air may then be again compressed as before, by closing the latter pipes and opening the supply pipe. The discharge pipe should be of large calibre, say two inches, so that the apparatus may be quickly emptied. The arrangement would be improved, Dr. Oatman writes, by using two connecting reservoirs, allowing the water to enter only the first, which should be the larger of the two, thus compressing the air in the second, where it can be kept ready for use. The water may now be discharged from the first, for which purpose it should be provided with a second air-tube, leaving it ready for instant use when the pressure is exhausted in the second reservoir. All the cocks governing the tubes of the apparatus may be placed in the office, if desired. Ten dollars will cover the entire cost of the apparatus.— *Therapeutic Gazette.*

The Inequality of the Pupils in Various Diseases.

Dr. Pasternatski, who has been working in Professor Chudnovski's

clinic in St. Petersburg, has published in the *Vratch* an account of a number of observations he has been making on the inequality of the pupils in the various diseases, thus carrying out a suggestion made by his chief in a work on the methods of examining medical patients, published in 1883, in which he expressed an opinion that careful examination of the pupils would lead to interesting results. Dr. Pasternatski examined a number of methods which have been proposed, but did not find any of them suitable for his purpose, and ultimately a much simpler plan, suggested by M. Follin, was adopted. This consists in bringing a catheter gauge-card close to the eye, and comparing the size of the pupil with the apertures in the card. By this means the size of the pupil in millimetres can be ascertained with a degree of accuracy sufficient for the purpose. It is important to make the observations in the shade, for the difference, when there is any, between the diameters of the pupils increases as the light is diminished. The best method of conducting the examination is to close the eye which is not being observed, for this cause a slight increase in the diameter of the pupil of the latter, as was indeed remarked by Hippocrates. It was found, for example, in a case in which this was tested, that when both eyes (being in the shade) were fixed on an object at a distance, the diameter of the right pupil was $5\frac{1}{3}$ mm., and that of the left 6 mm.; when, however, the eye not under examination was covered up, the diameters increased to 6 mm. and $6\frac{2}{3}$ mm. respectively. As to the diseases in which inequality of pupils has been observed, Dr. Pasternatski quotes a number of cases mentioned by continental physicians; also one of aneurism shown by Professor Gairdner to the Edinburgh Medical Society; as well as two reported by Professor Finlayson in the *Lancet* of January 3, 1885, in both of which aneurisms were found at the necropsy. His own observations gave the percentage of cases in which inequality was found in various diseases as follows: Croupous pneumonia, 85; heart-diseases and aortic aneurisms, 61; pleurisy, 52; chronic catarrhal pneumonia, 38; acute articular rheumatism, 25; catarrh of the respiratory passages, 25; scurvy, 16; typhus, 16; recurrent typhus (relapsing fever), 15; abdominal typhus (enteric fever), 13. Inequality of pupils was also found in half the cases of catarrhal and hepatic jaundice and renal colic. The largest percentage occurred in croupous pneumonia, and study of the cases showed that the position and stage of development of the disease has a remarkable effect upon the pupils. At the very commencement the pupil on the same side as the affected lung is, as a rule, larger than the other. The difference generally increases with the lung inflammation, reaching its height on the third, fourth, or fifth day; before the crises the difference decreases, sometimes even disappearing. Afterwards, during the stage of resolution, a difference is again manifest, the pupil on the affected side being now contracted. Not only do the pupils in pneumonia differ in size, but also in sensibility to light. Speaking generally, the author's observations lead him to believe that inequality of pupils is most frequently met with in those internal diseases which not only affect the system generally, but which, like pneumonia, pleurisy, and hepatic and renal colic, are definitely localized as well. It is also very usual in heart diseases and aneurism, but comparatively rare in scurvy and infectious diseases, such as typhus, and when it does occur in these

it is generally consequent on some complication.—*Lancet.*—*Therapeutic Gazette.*

Chalk Ointment as an Application in Erysipelas.

SIR DYCE DUCKWORTH, M. D., F. R. C. P., in *Practitioner:* My former preceptor, Professor HUGHES BENNETT, of Edinburgh, used to say that, whenever a long list of remedies was recommended as of value in the treatment of any disease, one might feel sure that very little was really known either about the nature of the disease or the means of expediting recovery from it. I think he specifically mentioned erysipelas as an instance in point.

Certainly both the local and the internal remedies which have been vaunted as beneficial in this disease are sufficiently numerous. I feel, therefore, some hesitation in recommending one which may or may not be novel, but inasmuch as it is certainly harmless, if not actively beneficial, and has stood the test of some experience, I venture to direct attention to it. The local application I now allude to is an ointment composed of prepared or precipitated chalk and benzoated or purified lard.

It appears to be quite immaterial whether the *creta præparata*, or the *calcii carbonas præparata*, of the Pharmacopœia be employed. Although the latter is a crystalline powder, and the former amorphous, both, when pure, are for all practical (*i. e.* clinical) purposes impalpable. To secure suitable consistency, and to ensure full benefit, it is necessary to incorporate a large amount of chalk in the ointment. It is noteworthy that lard will blend with an extraordinary quantity of chalk, either by beating in a mortar, or by adding it gradually to the lard previously melted. It is possible to make a very dense ointment by blending two and a half ounces of chalk with one ounce of lard. This is too firm to apply to a painful erysipelatous part, and in cold weather it almost crumbles. Experiments have been made for me both by Messrs. Dineford and in the Hospital Apothecary's department with prepared and with precipitated chalk, and the best results as to quantities have been attained by mixing equal proportions of each, the lard being previously melted. Half a drachm of pure carbolic acid may be added to each ounce of the ointment. That prepared with *creta præparata* is of the color of putty. The other is pure white. Both are equally serviceable.

As I have already stated, I am unaware if this local application has been previously employed. I can find no recommendation of it in any work on Materia Medica known to me. I have used chalk ointment occasionally for many years, but not of the strength proposed in this paper.

The earliest recommendation of a thick chalk ointment I can find is that by Mr. J. C. Spender, of Bath, who introduced it as an undoubtedly valuable preparation for intractable ulcers of the leg. In his book entitled *Observations on the Causes and Treatment of Ulcerous Diseases of the Leg*, published in London in 1835, he remarks that the best outward application is an ointment containing a very large quantity of prepared chalk. "The earthy matter," he states, "must be in a much greater proportion than enters into any ointment in the Pharmacopœia, consisting of about three pounds of lard."

He advises that the lard be first melted and the chalk gradually added in order to secure more intimate blending than can be attained by simple admixture or trituration.

In a re-issue of this book by his son, Dr. J. Kent Spender, the same process

is again recommended. The ointment is to be applied with the finger and smeared thickly over the erysipelatous part. A mask of plain lint or of boracic lint should be laid over this and properly secured.

Patients express themselves as feeling relieved by this, and prefer it to other applications which may have previously been used. An ointment of this kind and consistency presents several advantages over the old method of dusting flour over the affected part, especially on the face, since, to be effectual, the dredger has to be constantly in use. The flour also gets within the eyelids, causing sometimes great irritation of the conjunctivæ. I venture to commend, with some confidence, the local applicationof chalk ointment in erysipelas as being at once cleanly, unirritating, readily procurable and trustworthy, and at the same time cooling and soothing.

In severe cases, it may be necessary to reapply the ointment twice or oftener every twenty-four hours. This preparation is the favorite one in the erysipelas wards of St. Bartholomew's Hospital.

Should Transfusion of Blood be Practiced as a Restorative Measure.

Dr. Klopsteck, a staff surgeon in the Prussian army, in a painstaking and interesting work, describes the various changes which the doctrine of the transfusion has undergone in the course of time, and shows how enthusiasm at one time has given place to indifference and even condemnation at others.

He undertakes to give a thorough criticism of the indications, the method, and the result of transfusion with regard to the latest investigations, and finally sets forth the following weighty conclusions:

1. Death from hemorrhage does not result from too great loss of red blood corpuscles, but through disturbance of the distribution of blood in the vascular system.

2. In sudden loss of blood, death occurs when there is still sufficient blood remaining in the system to sustain life.

3. The direct transfusion from one person to another is very difficult to carry out, on account of the want of suitable and willing agents to supply the blood.

4. The blood of lambs and other animals is not suitable for transfusion into man.

5. Blood that has gone through any form of withdrawal can not be made a proper substitute for transfusion.

6. A direct nutrient action of the transfused blood upon the tissues of the receiver of it does not exist.

7. There is no danger of plethora connected with the direct injection of blood into the vascular system.

8. Depletory venesection in transfusion is useless and harmful.

9. The transfused blood undergoes more or less prompt destruction, and the appearances first cease with its complete removal.

10. The pressure of hemoglobin is an excellent sign for the recognition of the dissolution of red corpuscles in the system.

11. Blood and serum from different species of animals possess different degrees of destructive influence on the blood corpuscles of other species.

12. The property of producing fever by fermentation of a given specimen of blood differs in degree, according to the character of the process of defibrination; it is absent in none.

13. Transfusion of blood is to be discarded.

14. Infusion of chloride of sodium is a harmless agent for the restoration of the necessary vascular pressure after sudden profuse loss of blood.

15. The infusion of solutions of chloride of sodium is more easily borne than infusion of blood.

16. Statistics confirm this opinion of the infusion of chloride of sodium and its indication for acute anemia.—*Deut. Med. Zt.—American Prac. & News.*

A Method for the Surgical Treatment of Sero-Fibrinous Pleurisy.

DR. BENJAMIN F. WESTBROOK recently read before the Brooklyn Pathological Society the following paper, which was published in the *New York Medical Journal:*

Among many cases of chronic pleurisy which I have seen in hospitals and in consultation, I have occasionally met some in which the fluid had remained in the chest for several weeks or months, and in which it was impossible to withdraw it by means of the aspirator. They are usually neglected cases, occurring in persons past forty years of age, in whom the chest-wall has become rigid through partial calcification of the cartilages. There are always dyspnœa, cough, muco-purulent expectoration, and a general failure of nutrition. Though it is a well known fact that serous effusions may sometimes remain for months without giving rise to any serious disease, yet it has been my experience to find that these cases have generally eventuated in tuberculosis, the deposit beginning almost simultaneously at both apices. The lung has become collapsed, carnified, and, where not adherent to the chest wall, covered by a firm layer of inflammatory lymph. In order that the fluid may be withdrawn by aspiration, three things are necessary. In the first place, the lung must expand partially or completely; in the second place, if the expansion of the lung is not complete, which it rarely can be, the mediastinum must be displaced toward the affected side; and, in the third place, the diaphragm must ascend and the chest wall sink in. With the lung in the condition alluded to, it is often impossible by the force of the aspirator to secure any considerable expansion. The mediastinum has usually been spontaneously displaced toward the affected side by the attempts at expansion of the chest wall in breathing. The diaphragm has ascended as far as the weight of the abdominal viscera and its anatomical structure will permit; and the chest wall, on account of its rigidity, will not fall in. We obtain, perhaps, a few ounces of serous fluid, but this soon ceases to flow, and any further attempt is simply productive of extreme pain referred to the region of the diaphragm and lower intercostal spaces. The intercostal spaces can be seen to sink under the pressure, but this can occur to only a limited extent, and but a small quantity of fluid can be extracted. In one instance, thinking that the fluid was confined in the meshes of the coagulated lymph, I made an incision, resected a rib, and, passing a sound into the pleural cavity, broke up the bands of fibrin, which were running in every direction. By so doing I obtained a few ounces more of blood, but did not benefit the patient. It then occurred to me that the only method which promised any success in these cases was to diminish the extent of the thoracic wall by shortening the ribs, and this suggestion was made in a lecture delivered before the Asclepion Club, and published in the *New York Medical Journal* for September 11, 1886. I have since had an opportunity of testing the practicability in the following case:

[Here follows the history of an unsuccessful case, and from the facts obtained by a post-mortem examination, the doctor concludes:]

Death was undoubtedly due to tubercular meningitis, as there was no lesion found in any other organ which would account for the symptoms during life, or for the fatal termination.

To this accident we owe the opportunity for investigating the results of the operation.

The points which would seem to be proved by post mortem examination are :

1. That in a person beyond middle life, who has suffered for several months from a debilitating disease of this kind, the operation of resection of the ribs can be performed with a reasonable hope of obtaining primary union of the wound.

2. That the operation, if carefully performed, without wounding the internal periosteum or pleura, can be done without the fear of converting a serous into a suppurative inflammation.

3. That it will result in a great diminution in the extent of the cavity, as was shown by the difference in depth of the cavity at the time of aspiration and at the post mortem.

4. That it may be followed by diminution of the cough and expectoration.

Had the operation been done earlier in this case, the patient would probably have made a good recovery. On this account it would be well, when any such case is encountered, where the fluid is not reabsorbed and where its extraction by aspiration is not practicable, to operate at once with a view of allowing the side to fall in and come in contact with the lung, so favoring the absorption of the fluid and the adhesion which would subsequently result in re-expansion. It would probably be better, where the cavity is as large as in this case, to resect the last three or four ribs. Whether it would be advisable, immediately after the resection, to withdraw the fluid with the aspirator, is a question that remains to be determined by future experience ; but it might be wiser to trust to its spontaneous absorption than to inflict the additional injury of a puncture upon the patient.

DISEASES OF THE NERVOUS SYSTEM.

New Method of Testing the "Knee-Kick."

DR. WARREN P. LOMBARD (*N. Y. Medical Journal*) :

Last winter the writer made a series of experiments in the physiological laboratory of the College of Physicians and Surgeons, upon the time required for the development of a contraction of the quadriceps muscle in response to a blow on the ligamentum patellæ, as compared with the intervals elapsing when the muscle was stimulated directly by a faradaic current, and reflexly by an irritant applied to the skin near the knee. These experiments demanded a more delicate means of testing the "knee-kick" than any in general use. After a time an appliance was found which satisfied all the requirements. It is unnecessary to describe the method followed in this laboratory research, for it is not feasible for the general practitioner ; the following imitation of this method, however, can be employed in all places and at all times.

Let the patient lie on his side, the leg to be examined being uppermost. Place a cushion or roll of cloth between the thighs, so as to separate the knees, and, as far as possible, to fix the thigh of the limb to be studied. Support the foot of the leg to be examined by a sling, formed of a loop of bandage, or of a towel, suspended from a cord. Grasp the cord as far from the foot as may be, letting the hand be directly over the ankle, that the leg may swing freely and the degree of flexion of the knee be determined entirely by the tension of the

muscles. Strike the ligamentum patellæ with an instrument which has a rounded edge and which is considerably heavier than the ordinary percussion hammer.

Improvements upon this method will readily suggest themselves; such as to make the thigh immovable by letting it rest in a splint which is molded to its inner and posterior surface, and which is fastened to a firm support; to fix the foot in a suitable swing, and to let the cord from which it is suspended come from a pulley at the ceiling.

By means similar to those described, a marked "knee-kick" may often be got from a patient who, by the ordinary methods of examination, would exhibit little or none. The delicacy of the method depends on the fact that the muscle is relieved of the weight of the leg, and its slightest contraction can, therefore, cause a visible movement. By this means some rather curious results have been obtained. A marked "knee-kick" was observed in the case of one subject during sound sleep. The reenforcements described by Dr. Weir Mitchell were admirably illustrated. In short, the method seems to meet all the requirements of the investigator.

The extent of the motion of the foot, and consequently of the contraction of the quadriceps muscle, may be recorded by the following simple arrangement: A string may be fastened by one end to the heel, and by the other to a strip of elastic, which, in turn, is attached to a firm upright support. The support can then be placed in such a position that the spring shall be tense, shall be horizontal, and shall form a right angle with the long axis of the leg. The writing mechanism may consist of a piece of wire bent to form a T, the horizontal arms of which can be fastened to the string, while the free end of the stem can rest on a paper coated with lampblack, and secured to a board which is placed directly beneath.

A contraction of the quadriceps muscle will extend the leg, stretch the elastic, and, by drawing the wire across the blackened surface, leave a record of the extent of the movement. Such a tracing can readily be fixed by passing the paper through the ordinary brown shellac varnish. Crude as such a method is, it would enable valuable records to be obtained with but little trouble.

Meconeuropathia.

HUGHES (*Alienist and Neurol.*) calls attention to the fact that the long continued use of opium or its alkaloids (in any considerable quantity) engenders a disorder of the nervous system which is entitled to distinctive recognition. It is as much a pathological entity as alcoholism, saturnism, hysteria, or chorea Meconeuropathia, then, is entitled to as much consideration as many other obscure neuroses. The various symptoms of the affection become thoroughly manifest after withdrawal of the drug. Among the psychical symptoms are extreme restlessness, which may develop into morbid suspicion, or even spectral illusions, hallucinations, and delusions. Afterward there is delirium, with great agitation and tremor. This condition of transient insanity will depend in its ultimate manifestations and course much upon the constitutional idiosyncrasies of the patient. Melancholia and suicidal tendencies are therefore often developed in those of less sanguine temperament, while mania and modified delirium will appear in others. The lower neuropathic features are pains in the limbs resembling those of rheumatism, which are particularly manifest in the forearms. Sometimes the character of these pains resembles that of the pains of locomotor ataxia, the patient

complaining of pains which "shoot" along the course of the nerve-stems of the extremities. In conjunction with these painful manifestations there are usually profuse sweating and watery diarrhœa. The tense appearance of the facial muscles, so characteristic of those under the influence of opium, gives place to relaxation, and the whole expression of the countenance is one of extreme dejection. A subnormal temperature is also sometimes observed. The reflexes are exaggerated, and the function of sleep is more or less deranged. Sometimes the subject is the victim of persistent wakefulness, whereas in a not inconsiderable number of cases there is present a morbid kind of drowsiness, resembling that induced by inordinate drugging. With the diarrhœa there are also nausea and vomiting, accompanied by a continual desire to micturate. Indeed, many of the phases of the affection resemble, to a certain extent, those of cholera nostras. Too sudden an attempt to abandon the drug may give rise to symptoms of a most portentous character; and, indeed, death has frequently resulted from its precipitate withdrawal. A rational system of gradual reduction is to be commended, especially where the symptoms exhibited on temporary abandonment are at all threatening. The opium neurosis is not cured, even when the subject has been weaned from the drug; indeed, he is often affected with neuropathic symptoms and is therefore a proper subject for neurological treatment for many months, even after the drug has been definitely abandoned.—*N. Y. Medical Journal.*

Idiocy Complicated With Pachydermatous Cachexia.

BOURNEVILLE and P. BRICAN (*Arch. de Neurol.*) have contributed an interesting paper on this subject, which is somewhat difficult to abstract, owing to the somewhat desultory method of treatment. Starting out with the observation that Fletcher, Beach, and Ireland have published accounts of this form of idiocy under the designation "Cretinoid Idiocy," they state that they propose to designate the affection "idiocy with pachydermatous cachexia." They are influenced in this by the recent addition to pathology of the malady commonly known as myxœdema. The cases of idiocy with pachydermatous cachexia which have been reported are exceedingly rare, and those in which autopsies have been obtained still more so. Indeed, the latter become reduced to only four cases; but, what is of paramount importance, absence of the thyroid gland has been observed in all of them. From these facts there would seem to be an evident relation between the absence of the gland and the myxœdema. But what renders the correlation still more certain is the fact that a large number of individuals who have undergone extirpation of the thyroid have subsequently had "operative" myxœdema. Again, experimental physiology, as exhibited by the experiments of Horsely, goes to support the correlation existing between the absence of the thyroid gland on the one hand and pachydermatous cachexia on the other. Following this line of argument, the authors have divided their argument into two parts; the first is devoted to a consideration of cases of idiocy with pachydermatous cachexia; the second, to examination of instances of extirpation of the thyroid gland with subsequent development of pachydermatous myxœdema.—*Ibid.*

DIGESTIVE TRACT.

Diagnosis of Gastric Disease.

ZWEIFEL, of Zürich, has reached the following conclusions from clinical studies:

Delay in digestion is a symptom of gastric disease, most pronounced in dilatation and cancer, least in chronic catarrh, slightly developed in ulcer of the stomach.

In gastric ulcer, with extensive and recent destruction of mucous membrane, the period of absorption is much lengthened; in cancer of the cardiac portion it is much shorter than when the cancer is at the pylorus.

When absorption from a fasting stomach lasts more than twenty minutes, dilatation or cancer of the pylorus, or possibly both, are present, if the presence of extensive and recent ulceration is excluded. When by distending the stomach, or examination with a sound, it is proven that dilatation is not present, pyloric cancer is probable.

A differential diagnosis between carcinoma and simple ulcer can hardly be made from the single symptom of delayed absorption. When dilatation exists, delayed absorption will not show the presence of cancer, but the presence of a tumor; general cachexia and the absence of free hydrochloric acid are needed to complete a diagnosis.

A differential diagnosis between gastric catarrh and ulcer is not possible from the condition of absorption alone.

In diseased stomachs the difference in the rate of absorption between filled and empty stomachs, and in the same individual on different days, is less than in healthy subjects.

Gastric ulcer and dilatation can be so successfully treated that a normal power of absorption is established.—*Deutsche Med. Zeit.*—*Therapeutic Gazette.*

The Acids of Healthy and Diseased Stomachs.

CAHN and MERING have made the following observations:

It is possible to estimate quantitatively the amounts of lactic and hydrochloric acids in the same stomach.

In normal cases we find a half-hour after the ingestion of food a certain amount of hydrochloric acid.

With purely meat diet hydrochloric acid only is present.

The stomachs of healthy and diseased persons contain, when mixed diet is taken, in addition to hydrochloric acid, considerable quantities of fermentation acids and mixed acids, and these quantities increase the longer the food remains in the stomach.

In fever and severe anæmia hydrochloric acid may be absent.

In amyloid cachexia hydrochloric acid is generally present.

In cancer of the pylorus the presence of hydrochloric acid is the rule, its absence the exception; it is present, not in traces, but in considerable amounts.

Methyl-anilin-violet is colored blue by the hydrochloric acid of the stomach and is a test for its presence.—*Deutsche Med. Zeit.*—*Ibid.*

Treatment of Chronic Diarrhœa by Sulphocarbonated Water.

DR. DE CHAMPEAUX reports in *Bull. Gén. de Thérapeutique* two cases in patients greatly enfeebled by exposure at sea and in the tropics where fœculent, chronic diarrhœa was cured by this agent. It was given in doses of 20 to 60 grammes (f. ʒ v to xv.) in milk during the twenty-four hours, and as an adjuvant to tonic and astringent drugs.

Its use must be patiently continued, and the results are obtained only after prolonged use.

Its mode of action is explained by Dujardin-Beaumets as being disinfectant, destroying micro-organisms and neutralizing ptomaines, and thus remov-

ing the irritating causes which keep up the intestinal lesion. It may be prepared in the following formula: Bisulphide of carbon, ʒ vi½; water, Oi; essence of mint, 50 drops. Place in a flask containing three pints. Shake thoroughly.—*Therapeutic Gazette.*

An Intestinal Antiseptic.

BOUCHARD, in the *Revue Internationale des Sciences Médicales*, gives the following: ℞. Napthaline, sacch. pulv., āā ʒ iss; Ol. bergamot, gtt. iii. M. Ft. pil. xxx. Sig.—One every hour.—*Ibid.*

Absorption of Fat in Acute Intestinal Catarrh.

DR. VIAZHLINSKI, who has been working in Professor Ivanovski's laboratory of pathological anatomy in St. Petersburg, has published an interesting paper on the question of the absorption of fat in acute catarrh of the small intestine. The literature, to which he first alludes, comprises more than ninety papers, etc., including those published by Goodsir, Schäfer, and Watney in this country. His own observations were conducted by inducing acute intestinal catarrh in animals by means of irritant drugs, and then feeding them with milk or other fat containing food, after which the animal was killed and the intestinal villi examined with the help of osmic acid, which he found the most satisfactory agent for making the preparations. The drugs used were colchicin and croton oil. Several animals (cats and dogs) died, so the quantity of colchicin was reduced from one-thirtieth to one-sixtieth or one-hundreth of a grain, which produced choleraic stools. Croton oil was given in repeated doses of five or six drops, producing diarrhœa with exhaustion. When the animals presented, besides diarrhœa, an inflated abdomen, constant borborygmi, and a considerable degree of exhaustion, an acute catarrh of the small intestine was considered to have been established, and the fatty food was administered. The microscopic observations showed that in catarral conditions, as well as in health, the fatty particles are absorbed by their inclusion within round or amœboid cells—*i. e.*, leucocytes—the difference in the diseased state being merely a quantitative one. No evidence could be obtained of any part being taken by the epithelial cells in the absorption of fat.—*Lancet.*

On Fecal Accumulation.

The rather heterodox views of TREVES in regard to the effect of constipation upon the system, are given in the *Rundschau* as follows: Treves is of the opinion that moderate obstruction need not be accompanied by any untoward effect upon the health. In one sense we can look upon the ileo-cecal opening in man as the actual anus. The large intestine plays a very unessential role in digestion, and rather serves as a reservoir for the fecal masses, until they are discharged. It is difficult to believe that the retention of fecal matter in this tube has such injurious consequences as have been ascribed to it. There can be cited numerous cases in which obstruction has existed one, two or even three weeks, without producing disturbances of health. Beside, there are many perfectly healthy men, in whom passages from the bowels occur only once or twice a week. Cases are known in which the large intestine was filled with incredible masses of feces, and the ileo-cecal valve still exercised its function completely. Obstruction can be caused by unsuitable food, indigestion, loss of power of the muscular coat of the intestine, by a too rapid absorption of the liquid part of the food or by a slight narrowing in the rectum. In such cases, order an

aperient ; the treatment may be said to begin 20 or 30 feet from the seat of the trouble. On the other hand, the too frequent use of drastics is injurious, and accompanied frequently by evil results. The chief danger in fecal accumulation consists in the sudden supervention of symptoms of acute intestinal obstruction, which usually ends in death. By the continual pressure of the fecal masses, or by the irritation excited by them, ulcers arise, which present a critical complication.— *Weekly Medical Review.*

Intestinal Displacement a Cause of Dyspepsia.

M. GLÉNARD, a Vichy phisician, believing that displacements of the intestine or "enteroptoses" are a good deal more frequent than is generally supposed, and that they are, indeed, a common cause of dyspepsia, has been in the habit of examining the dyspeptic and neurotic patients who consult him by making them stand up, and then going behind them and pressing on the abdominal wall when in a relaxed condition. If this produces a distinct alleviation of the discomfort he considers that enteroptosis is present, and orders a binder, which in these cases gives great relief, only lasting, however, while it is actually worn. A discussion on this subject has just taken place at a meeting of a Paris medical society, but M. Glénard did not find many of his colleagues prepared to accept his views.— *Medical and Surgical Reporter.*

Death after Washing out the Stomach.

At a meeting of the Cambridge Medical Society, on Nov. 5, Mr. Martin brought forward a case of a patient who was admitted into Addenbrooke's Hospital under Dr. Bradbury, for stricture of the pylorus. He was 48 years old, and seven years previously had been an in-patient, with symptoms of pyloric ulcer. His stomach was now much dilated, and he suffered from flatulence, vomiting, pain, and increasing weakness. He vomited large quantities of frothy fluid, containing sarcinæ. Ten days after admission, it was decided to wash out the stomach. Soon after passing the tube into the stomach the patient became very faint, so it was withdrawn. About two hours afterwards, he complained of stiffness of the jaws, with inability to open the mouth, and rigidity of the arms, which were strongly pronated and flexed, the thumbs being turned into the palms. He was conscious, and sweating profusely. The rigidity spread to all the muscles of the limbs and trunk, and the temperature rose to 103.4°. He became pulseless and livid, the temperature rising to 107.2° before death, which occurred six and a half hours after washing out the stomach. Post-mortem examination showed a simple stricture of the pylorus with the scar of an old ulcer, and a much dilated stomach. There was no injury or abrasion of the mucous membrane. The other organs were healthy, and no lesion of the brain was discovered. Mr. Martin said the fatal symptoms very closely resembled tetanus, although no wound of any kind could be found to induce it. The symptoms were not characteristic of strychnine poisoning, the patient had no opportunity of obtaining any. — *Brit. Med. Jour.— Jour. American Med. Assoc.*

DISEASES OF THE URINARY ORGANS.

The Clinical Significance of Uric Acid Deposits.

PROF. JOHANNES MYGGE, of Christiana, formerly Chief of the Medical Clinic of Copenhagen, observing that abundant and persistent uric acid deposits often coincide or alternate with

albuminuria, has undertaken to make a thorough investigation of this subject. In order to ascertain the frequency of these deposits and the special conditions in which they are present, he made daily examinations of the urine of 272 patients in his wards with the following results :

1. Of 3,287 specimens of urine examined, 2,786 coming from 127 patients, presented no traces of uric acid deposits. But 501 specimens coming from 105 patients, contained such deposits. Among these latter, only 262 coming from fifty-nine, showed abundant deposits ; in the remainder the quantity was small and often combined with urates. In forty-three of the fifty-nine patients whose urine gave abundant deposits, these were observed only for short periods, but in the remaining sixteen the deposits were more persistent, being observed for a week or more.

2. The deposits under consideration were observed most frequently in certain diseases, among which the following may be mentioned as the most important : They were detected in three of sixteen cases of acute articular rheumatism, and in two of eleven cases of chronic rheumatism. This same rule may be applied to the transitory deposits which are found very frequently in acute pneumonia—eleven cases in twenty-five.

3. In twenty-seven of the fifty-nine cases, the author observed albuminuria coincident with the uric acid deposits, and in twenty-two other cases a doubtful trace of albumen is mentioned. It is quite probable that the association of albuminuria with uric acid deposits might have been detected in other cases, if an examination for albumen had been made in every case.

4. Deposits (transitory) of uric acid often appear on the cessation of attacks of acute albuminuria, a fact which has already been pointed out by Dickinson.

5. The probability of a relation between uric acid deposits and kidney lesions is indicated by the fact that seventeen of twenty-five cases in which a microscopic examination of the urine was made, morphological elements, coming from the kidneys, were detected. In fourteen cases both tube casts and renal epithelium were observed ; in three cases casts only were found.

It therefore follows that there is a very frequent, if not a constant, association of renal lesions with persistent uric acid deposits, and we may also conclude that transitory deposits indicate a functional derangemant of the kidneys.

The explanation of these relations is at present impossible. In some cases we may suppose that the saturation of the urine with uric acid, and the consequent excessive acidity inflame the renal epithelium, and produce lesions of the kidneys. In other cases, the renal lesions undoubtedly precede the deposits of uric acid, and here we may perhaps accept the hypothesis recently advanced by Eschbach, who claims that the precipitation of the uric acid is due to the morphological elements contained in the urine. These latter deposits are only found after the urine has been passed several hours, and are of great importance not only in diagnosis but also in determining the treatment. In some cases the uric acid was detected immediately after the urine was passed, and it is quite probable that the precipitation takes place in the urinary organs. In comparing the patients of the first group, those with uric acid deposits persisting for a week or a month, the author found that of thirty-two well marked cases nine had infallible signs of renal disease, ten were treated for acute rheumatism, and three each for

pneumonia empyæma and dysentery. Nine of the thirty-two cases were fatal. In the case of one an autopsy could not be obtained, but he presented the clinical history of nephritis. Seven of the remaining eight, on post mortem examination, revealed the presence of renal disease. Four had chronic nephritis and the other three had tubercular kidney, gouty kidney and cancer. In the eighth case no signs of renal disease were evident to the eye, and a microscopic examination was not made. With regard to the clinical history of these thirty-two cases, twenty-one had albuminuria, and in the twenty-five cases in which the urine was examined microscopically, the author found tube casts and epithelium without exception.

Uric acid deposits are also connected with desquamation of the vesical epithelium and with certain forms of incontinence of urine. The author has not yet completed his researches regarding these questions.—*Buffalo Medical Jour.*

Treatment of the Various Forms of the Uric Diathesis.

Noting, says M. VIGIER (in the *Gazette Hebdom. de Méd. et Chirurgie*), that the majority of those subject to the various forms of the uric diathesis—gout, gravel, etc., are valetudinarians averse to anything that interferes with their fixed habits of life, or offending the sense of taste, he has contrived his medicaments so that they may be administered in pill form, as follows:

1. In old cases of gout, uncomplicated in any manner: ℞. Carbonate of lithium, ʒ ijss.; extract of gentian, ʒiv. Mix and divide into 100 pills, one of which is to be taken at each meal.

2. When the gout is complicated with nephritic colics, it seems advisable to supplant the carbonate by the benzoate of lithium, in the same doses.

3. In chronic gout, with calcareous concretions at the joints, the iodides should be added, thus: Carbonate of lithium, iodide of sodium, of each, ʒ ijss.; extract of gentian, powdered gum arabic, of each, gr. xxij.; powdered licorice, ʒv. Mix and divide into 100 pills, one of which is to be taken at each meal. These pills should be kept in a closely stoppered bottle.

Another formula, applicable in these cases, is as follows: Carbonate of lithium, iodide of potassium, of each, ʒ ijss.; extract of gentian, ʒiijss.; powdered gum arabic, ʒiss. Mix and divide into 100 pills. To be taken as above.

It should be noted that the sodium iodide being deliquescent, requires the addition of the licorice powder—a precaution not necessary in the second formula.—*St. Louis Med. and Surg. Jour.*

Treatment of Diabetic Thirst.

DUCHENNE recommends (*Nouveaux Remèdes*) the following mixture for the excessive thirst of diabetic patients: ℞. Phosphate of potassium, 2 parts; water, 75 parts. One teaspoonful should be given two or three times a day in a little wine or hop tea.

Cocaine as a Diuretic.

DR. DA COSTA and DR. PENROSE (*Medical News*) have obtained a marked diuretic action with this drug, administered in doses of from half a grain to a grain two or three times daily. It is especially recommended in cases of cardiac insufficiency with dropsy.

W. v. Schröder (*Ctrlbl. f. d. Med. Wissensch*) asserts that the diuretic action of caffeine is due to a direct stimulation of the renal epithelia rather than to an increase of the blood-pressure. Langgaard reaches the same conclusion as the result of independent experiments.—*New York Medical Journal.*

CONSTITUTIONAL DISEASES.

Treatment of Malarial Diseases by Picrate of Ammonia.

H. MARTYN CLARK, M. B., C. M. (*London Lancet*):

Picrate of ammonia possesses valuable therapeutical properties, though it does not seem to have received the attention which it deserves. The characters, properties, and uses of this substance were carefully investigated by Dr. Dujardin-Beaumetz, and the results were communicated by him to the Therapeutical Society of Paris in 1872. The salt had previously been successfully used in the treatment of intermittent fever by Drs. Braconnot, Calvert, Aspland, Bell, and some others. Dr. Beaumetz's researches confirmed the results at which these observers had arrived, and showed that in this substance we have a valuable and efficient substitute for quinine in the treatment of malarial diseases. It appears to have passed out of mind, and, as far as I can gather, has never been used in India. My attention was directed to it accidentally in the following way: I had a patient under my care at a hill sanatarium who had suffered for seven months from severe intermittent fever of the quotidian type. Quinine, arsenic and other antiperiodics had been and were freely used, but failed to give relief. After ten days' treatment the fever still recurred daily with its accustomed severity. At this juncture the local chemist told me of a remedy for fever, which he had received some years previously, but had never tried. This I found to be picrate of ammonia. I gave it to my patient, with very gratifying results. The fever did not recur next day, nor did it do so at any time during the three subsequent months in which she remained under my observation. I have since then constantly used the picrate of ammonia in the treatment of malarial diseases. There has been ample opportunity to test it fully, for Amritsar is notorious in the Punjab for its unhealthiness, and diseases of this kind are severe and frequent. During a period of four years and a half, I have treated over 10,000 cases of these diseases with this agent, with the happiest results. So uniformly successful has it been, that I have in our very extensive practice here given up the use of quinine and the cinchona alkaloids for the treatment of intermittent fever, and have substituted picrate of ammonia for them. A record was kept of 5,000 cases of intermittent fever treated with this agent. Of this number, in nine cases only did it fail to cure, and in these quinine succeeded at once. I usually give it in doses of from one-eighth of a grain to a grain and a half, four or five times a day in pill. Half a grain is a fair average dose. Thus given, the result is soon visible. In the great majority of the cases treated, half-grain doses in the interval prevented the recurrence of the next attack of the fever, while in about 20 per cent. of the patients two or three attacks followed before the fever ceased. In one case of quartan ague, despite large doses of the salt, the fever recurred for six periods, gradually diminishing in intensity, and then yielded to it. It is equally successful in all the forms of ague, but it is a curious fact that the cases in which it failed to cure were all of the tertian variety. I have also employed this agent in the treatment of twenty-five cases of malarial neuralgia of various nerves, six cases of malarial headache, and one of malarial colic. In all these instances it cured completely and speedily. In remittent fever it does not appear to be of use; six cases of a

severe type were treated without any effect. Neither is the enlarged spleen of ague benefited by it. I have given it in a number of such cases in conjunction with ergotine with good results, but such results are secured equally by the use of ergotine alone.

My experience leads me to the conclusion that in all varieties of intermittent fever, and in malarial neuralgias, picrate of ammonia is a valuable antiperiodic and it is an efficient and perfect substitute for quinine. It has the following advantages over quinine: 1. It is much less expensive. This is an important consideration where, as in Indian practice, hundreds of cases of malarial diseases have to be treated annually. 2. The dose given is very much smaller. 3. It does not produce the unpleasant effects that quinine does—headache, deafness, tinnitus, etc.; nor does it disorder the digestion or cause nausea, as quinine is apt to do in the doses in which it has to be given in India.—*Med. Age.*

Vaseline for Hypodermic Use.

The experiments of MEUNIER on the use of vaseline as a menstruum for hypodermic medications, is attracting much attention in France. Dujardin-Beaumetz has recently reported favorably on the method.

The following formulas are recommended by Meunier, who has used them with success on animals and human subjects.

1. Pure eucalyptol, five parts (by weight); chemically pure vaseline twenty parts. The injections are made on the outer aspect of the thigh. The dose varied from 15 to 225 grains daily.

2. Pure eucalyptol, 5; iodoform, 0.25; pure vaseline, 20. The same dose is tolerated as in the preceding.

3. Sulphide of carbon, 1; pure vaseline, 19. The dose tolerated is fifteen to thirty grains per day; or more, provided it be injected in small amounts, which may be often repeated.

4. Pure turpentine (prepared by Berthelot's method), 5; pure vaseline, 20. Dose, 15 to 150 grains a day.

He insists that the vaseline must be chemically pure. Impure vaselines blacken on the addition of sulphuric acid. Many commercial products give the following reaction:

Saturated with absolute phenol and lightly warmed, they become rose-colored, and a violet precipitate is let fall; the intensity of the violet color is augmented by the addition of alcohol; this violet tint, which is due to an aniline coloring matter, indicates the presence of dangerous azotized substances. Pure vaseline gives no such reaction, and he is enabled to inject them without pain or inflammation following.

The eucalyptol and other essences are apt to be also impure; the commercial oil of eucalyptus containing only a half or third part of eucalyptol.

The resinous matter, however, is precipitated when the vaseline is added, and can be separated by filtration.

The medicinal agent is dissolved in the vaseline, shaken well, allowed to subside, and filtered through two sheets of filtering paper.

The following maladies were under treatment by this method: fistulous tracks, fungosities, tubercle, cysts, favus, herpes tonsurans, alopecia, psoriasis, eczema, acne, venereal affections, leucoma, granular lids, glaucoma, puerperal fever.

In animals, also, were treated glanders, scab, farcy and general and local tuberculosis. Meunier never observed albuminuria following these injections, even in cases when the temperature reached 41° Cent. He injected into the lung of a horse, without injury, five

drachms of the solution of eucalyptol at one time ; and the same amount of the sulphide of carbon solution.

Ten drops of the eucalyptol solution were injected into the eye of a rabbit, fifteen drops into the eye of a sheep, and 750 grains under the skin of a horse.

Two pounds of pure vaseline were injected under the skin of a horse in three injections, on the same day, to prove its innocuous nature. On the other hand, fifteen grains of impure vaseline injected into the arm of a man, gave rise to an abscess containing half a litre of pus. He also calls attention to the value of the same agent in preparing, extemporaneously, antiseptic surgical dressings.

In a subsequent paper he adds the following formulas :

5. Iodoform, chemically pure, 1 ; vaseline, liquid, 100. Porphyrize the iodoform and add the vaseline gradually, with prolonged trituration. Filter through two sheets of filtering paper ; put the liquid in a bottle of green photographic glass, corked with emery.

6. Pure menthol, 10 ; vaseline, liquid, 90. Cause the menthol to dissolve in the vaseline by gentle heat, in a water-bath. Filter through double paper.

7. Pure thymol, 1 ; vaseline, liquid, 200. Proceed as with menthol.

8. Pure phénol, 1 ; vaseline, liquid, 100.

9. Iodine, 1 ; vaseline, liquid, 100. Triturate the iodine, cold, with the vaseline ; filter through three papers ; preserve the solution in a green glass bottle, with emery stopper.

10. Camphor, 1 ; vaseline,liquid, 100, Triturate cold with the vaseline, and filter through three papers.

Clinical experience will show for what maladies these solutions will prove useful. From the rapid diffusion of these liquids, considerable amounts can be injected in any given time, and by multiplying the injections, the patient may be saturated with the germicide.

Dujardin-Beaumetz says that the vaselines of America are inferior to those of Baku, and the latter to those produced in Europe.

He found that the amount of eucalyptol in Meunier's formula could be increased with impunity to fifty per cent. Of this mixture he gave fifteen minims morning and evening. The majority of the patients found a decrease of their expectoration and of the cough ; but many complained of the persistent odor of eucalyptol on the breath ; showing that the drug was eliminated by the lungs. As to myrtol, by injecting fifteen to sixty minims of the solution in certain cases of neuralgia, a very transient amelioration is obtained.

Iodine is very well borne, and by injecting fifteen minims of a one per cent. solution, the same effect on a case of asthma is obtained as by giving fifteen grains of iodide of potassium. Sulphuretted hydrogen is equally well borne, but no appreciable results were obtained. As to iodoform in gonorrhea, he urges its local use with vaseline of greater density, containing more paraffine.—*Bulletin Gén. de Thérap.*

Local Treatment of Diphtheria.

Dr. C. E. Billington (*Medical Record*) :

From the considerations given in the previous part of this paper, it appears that the principal objects of local treatment in diphtheria are the following : First, to subdue inflammation : second, as a general rule, to which there are exceptions, to effect the gradual and superficial softening and thinning of false membrane, rather than its rapid and complete removal and destruction : and

third, by antiseptic measures to minimize the absorption and dissemination of poison.

First among these methods is that of internal administration, for the sake of local effect in the mouth and throat. This method has the advantages of simplicity and of ready and general availability, but as the remedies employed by it are usually selected for the sake of their constitutional effect as well, it belongs only in part to our present subject.

Among medicinal agents the tincture of the chloride of iron and the chlorate of potassium undoubtedly hold the leading place in general use and estimation. Their action is too well known to require present remark. For this the following formula is suitable: ℞. Tinct. ferri. chlor., f ʒ j.; glycerinæ, aquæ, āā f ℥ j. M. et Sig.: A teaspoonful every hour. Remedies administered internally in diphtheria must, to have any valuable local effect, be given frequently, and the result of frequent struggles may be disastrous. Hence the importance of avoiding unpleasant medication in this disease in the cases of young children can hardly be exaggerated.

Again, many diphtheritic throats, especially of young children, are in a state of such exquisite sensitiveness that tincture of iron in any combination will cause local pain and irritation, and frequently reflex vomiting. Hence the writer prescribes the chlorate of potassium separately in the mixture: ℞. Potass. chlorat. ↄij.: glycerinæ, f ℥ ss.: aquæ calcis, f ℥ ijss. M. A teaspoonful to be given in half-hourly alternation with the tincture of iron, but to be substituted for it whenever the latter shall produce any unpleasant effects.

The washing of the throat and the application of remedies to it by means of a syringe is much more generally applicable, than the use of gargles, and is usually preferable to the preceding method. In some cases the throat has a tendency to fill up with tenacious and offensive secretions, which are locally irritating and greatly increase the danger of systemic infection. These may be readily dislodged and removed by syringing, not only from the anterior side of the soft palate, the tonsils, and the faucial pillars, but from their posterior side as well, and with less pain and fatigue to the patient than are caused by gargling. An ordinary ounce or half-ounce syringe with a straight tip and a ring in the handle is a suitable instrument, and solution of common salt, in the proportion of a drachm to the pint, an appropriate fluid for this purpose, though a great variety of combinations known as gargles may of course be thus applied.

The fact that toxic absorption is particularly liable to occur in nasal diphtheria is established by general observation. Syringing of the nasal passages in that form of the disease has consequently been so long and so widely practised that arguments in behalf of its importance would be superfluous. There are, however, questions relating to the method of performing it, and to its limitations, respecting which there is less complete concurrence, and which are important enough to be worthy of consideration.

Simple as is this procedure it has often been made by bungling methods, or want of method, very formidable and distressing. The child should be seated across the lap of one person, who should secure his hands. Another should stand behind him and support the back of his head (which should be inclined forward) against his breast, holding it firmly with a hand on each side. A third can then easily make the injection into the nostrils.

A very important question remains. How often shall this process be repeated? In both of the papers previously referred to it was stated that it was in all of the cases therein included performed only by the writer himself, or the physicians who assisted him, and was usually done only two or three times a day. The results left little to be desired.

Spraying possesses important advantages, and is subject to certain important limitations. Its chief advantages are that it is in itself gentle and unirritating, and not very fatiguing; that by it remedies may be applied in a more direct, evenly diffused, and continuous manner to the oral and pharyngeal surfaces than by other methods, and that they may even, by the assistance of the inspired air, be made to reach the rima glottidis and the vocal cords. It has no valuable applicability to the nasal passages in most cases, and should never be made a substitute in them for syringing.

Pleurisy.

Dr. Stephen Smith Burt, in an article published in *N. Y. Medical Journal*, said substantially:

To distinguish an effusion of pleurisy from the solidification of pneumonia, we must likewise consider the history and symptoms as well as the physical signs.

The invasion of pneumonia is signalized by a decided rigor; that of pleurisy by chilliness without much shivering. Pain may or may not be prominent in both affections. An effusion usually gravitates to the lower part of the chest; consolidation may take place at any point in the lung.

In pleurisy there is immobility of the affected side, with expansion; in pneumonia there is some immobility, but no expansion.

The sputa of the last named are characteristic; those of the first named affection are not.

Fremitus is absent in pleurisy, while in pneumonia it is exaggerated.

The respirations are from forty to eighty in the one, and from twenty to thirty a minute in the other.

The half circumference is increased by an effusion, and not modified by consolidation.

The temperature ranges from 100° to 103° F. in pleurisy; in pneumonia it commonly lies between 102° and 105° F.

Where there is fluid there is flatness; hepatization gives dullness.

Upon auscultation, we find that vocal resonance and the vesicular murmur are absent in pleurisy, but in pneumonia we hear both bronchial breathing and bronchophony.

Now, as the fluid recedes, the fremitus gradually returns, flatness disappears from above downward to the lower part of the chest, and vesicular respiration, of diminished intensity, is again heard. But with this comes a return of the friction, which in time may cease; still, in many instances it lasts for years. And at the lower part of the chest, because of the thickened pleura, flatness may continue for an indefinite period. As a rule, contraction of the chest does not follow acute pleurisy, but it frequently succeeds the subacute form, and then, as shown by mensuration, there is a decrease in the semi-circumference of the affected side, toward which the heart is now drawn.

With the absorption of a sero-purulent effusion there may be an adhesion of the costal and pulmonary pleura, and attachments may also follow a plastic exudation, or form in the very commencement of the disease. The physical signs of this condition can be given in a few words. We find considerable restriction of the respiratory play of the

affected side ; the half circumference is diminished ; the heart is drawn toward the contraction ; vocal fremitus is either decreased or absent ; and there is dullness or flatness in proportion to the amount of new connective tissue. The respiratory murmur is suppressed, or at least feeble, while here and there friction sounds remain audible.

In acute pleurisy, of severe form, rest and absolute quiet are essential ; and for the relief of suffering I have found nothing so efficacious as the subcutaneous injection of morphine and atropine at the seat of pain. The dose and the frequency of administration are to be regulated by the peculiarities of the individual and the requirements of each special case. There is an advantage to be gained by inserting the medicine near the locality of the pain ; and somewhat larger doses of morphine can be given during acute suffering than at other times. The following solution—℞. Morphinæ sulphatis gr. xvj ; atropinæ gr. ss.; acidi salicylici gr. ss.; aquæ puræ q. s. ad ℥ j. M. Sig.: for hypodermic use—is less likely to produce nausea and vomiting than any that I have tried, and moreover, an abscess has never followed its employment, even when kept for a very long time. With less severe attacks of pleuritis, dry cupping is often sufficient for the relief of pain. But the cups must be thoroughly applied ; and as they are usually too small, an ordinary tumbler is, in my opinion, preferable. Binding the chest with strips of plaster helps to restrict the mobility of the ribs, and thereby controls in some degree the distress occasioned by their action. Throughout the course of the disease the patient should remain in a well ventilated room, free from draughts, and live upon nourishing food, without alcoholic stimulants, unless some particular reason demands their administration.

The pain of subacute pleuritis soon became extinguished in the progress of the disease ; and prior to this the remedies for acute pleurisy find an application here as well.

Upon the advent of an effusion we have to shape our treatment with the view of a removal of the fluid. But it has always seemed to me, if you will pardon the slight digression, that many physicians, in their eagerness to accomplish something, now and then lose sight of the ulterior effect of medicine in their desire for immediate results; for instance the sweating and purging, to say nothing of bleeding, that have their advocates in the treatment of pleurisy, and the present rather intemperate employment of antipyretics, too often regardless of the consequences of the remedy, if the fever can only be lowered from its ofttimes innocent elevation. As I have elsewhere remarked, the thermometer has its uses, and they are not to be under estimated, yet, at the same time, the inferences drawn from the employment of the instrument are not infrequently unwarrantable.

Therefore, if the fluid does not encroach upon the viscera to an alarming extent, I place the patient in bed, see that the room is comfortably warm but well ventilated, order a nourishing dietary, charge the invalid to abstain as much as possible from all fluids, and allow a week or ten days to go by. The dry diet, where it can be enforced, is of undoubted value, for the problem before us is to remove more fluid from the body than is at the same time taken into the system. Daily physical exploration will tell a practiced examiner the course pursued by the effusion ; and he must be prepared for active measures should the fluid rapidly increase. Meanwhile, the unwonted rest of the patient will require attention to his stomach and bowels ;

and, moreover, the chances are that his general condition is not good. Consequently, cod-liver oil, if well borne, is of service; teaspoonful doses after meals, which, by the way, are more easily assimilated on the addition each time of two or three drops of ether. In connection with this comes syrup of the iodide of iron, in like amount, and perhaps mild alcoholic stimulation. Furthermore, though aware that some question the potency of the following mixture, yet I am inclined to believe it a promoter of absorption, viz.: ℞. Potassii acetatis, gr. x; infus. digitalis, ʒ ij; aquæ puræ q. s. ad ℥ ss M. S. Every four hours.

For any collateral pulmonary œdema, dry cups must be extensively applied.

When ten days have elapsed, and the fluid has given no sign of recession, it had better be withdrawn without further delay. The longer it remains, the less easily will the lung resume its former position. My experience, which has been wide in this direction, leads me to an unqualified approval of the procedure.

A good position for the patient during this operation is to sit sideways upon a chair, and a convenient attitude for the operator is kneeling upon the floor. The place where the needle should be introduced is either the fifth, sixth or seventh intercostal space, just to the outer side of the scapular line. Let the operator firmly press his thumb into the space selected for a moment, and then insert the needle where he has made the depression. The entrance should be effected nearer the lower than the upper part of the intercostal space and the instrument thrust not deeper than one inch—to escape the intercostal vessels in the first, and to avoid reaching the lung, or possibly the diaphragm, in the second instance. If the needle is pushed through the fluid into the lung, not only is that organ wounded, but the object of the procedure defeated.

For thoracentesis I employ a Potain aspirator, and use one of the smaller needles with a sharp point; but, in consideration of a possible injury to the lung, would recommend a small trocar and cannula, made to fit the aspirator.

There is no danger of admitting air, for the pressure, which is first in the opposite direction, is kept there by the exhaust pump. The needle, however, should be thoroughly cleansed in a solution of carbolic acid immediately before it is used.

Now, when the contents of the pleural cavity are purulent, there should be no delay about thoracentesis. But, as empyema is not unlikely to have existed for a long time, it is somewhat less safe to complete the operation at one sitting. If the pus is allowed to remain, there is always danger of its making an exit for itself; yet, if this takes place through the chest wall, it is the best that can happen under the circumstances, for with children, at least, there is still a fair prospect of recovery.

My experience teaches me that we should not be too hasty in making an opening into the pleural sac. It is preferable to allow two, and perhaps three, chances for recovery by aspiration before drainage is established, unless the general symptoms are urgent. An adult patient that was treated at my clinic for empyema returned a year after the last of four operations, the last two of which I performed, and he had practically recovered from the disease. When it becomes necessary to cut into the chest, a strict observance of the antiseptic method should be kept. A soft rubber tube or catheter can be introduced, and the cavity washed out with a very dilute solution of hydrogen peroxide. Finally, a permanent drainage can be carried on

through a notched tube, held in place by a safety pin, and led into the bichloride gauze, and the boric cotton used for a dressing.

Note on Tincture of Strophanthus.

DR. FRASER says, in the communication referred to, I described several cases of cardiac disease treated with strophanthus in the form of tincture, in which however, several tinctures varying in strength and in other characters had been administered. These variations were to some extent due to the circumstances that, in the absence of knowledge regarding the therapeutic effects of strophanthus, trials of a tentative description were required with preparations of different strengths before one could be selected whose dose is a convenient one. More recently, I have nearly always employed a tincture corresponding to the officinal tincture of digitalis (1 in 8), as it was more easy with it to institute a comparison between strophanthus and digitalis. The dose of this tincture was ascertained to be from two to four minims, two minims being, in a large proportion of cases, a sufficient quantity. The preparation has in my hands proved altogether satisfactory, but no doubt for general use its dose may be an inconveniently small one.

Judging from expressions of opinion in various quarters, the requirements of general practice would in all probability be satisfactorily met by a tincture whose doses range from five to 10 minims. These doses would be obtained by a tincture of 1 in 20, prepared by the following process; and I would accordingly propose the adoption of this tincture in the future applications of strophanthus in the treatment of disease.

Strophanthus seeds, deprived of their comose appendices, reduced to powder, and dried, 1 ounce or one part. Ether, freed from spirit and from water, 10 fluid ounces, or 10 fluid parts. Rectified spirit, a sufficiency to obtain 1 pint, or 20 fluid parts.

Remove entirely the stalks and comose appendices from the seeds, reduce the seeds to a moderately fine powder, dry the powder by exposing for twelve hours to a temperature of 100° or 120° Fahr., and weigh. Pack in a percolator (the percolator being furnished with air valves, or being otherwise so constructed that the percolation may be arrested when desired), add ether until the whole of the powder is saturated, and a small quantity of the ether has dropped into the percolator; arrest the percolation for twenty-four hours, and then continue percolating slowly until the whole of the ether has been used. If the last ether percolate should not be almost colorless, use more ether.

Remove the powder from the percolator, expose to the air, and break up any lumps after the ether has sufficiently evaporated; and continue the exposure, heating the powder, if necessary, to 100° or 120° Fahr., until all the ether has evaporated, when a uniform, nearly white, dry powder may be obtained.

Repack the powder in the percolator, add enough of rectified spirit to moisten it thoroughly; arrest the further flow of the spirit, and macerate for forty-eight hours, and pass rectified spirit slowly through until twenty fluid parts of tincture have been obtained.

In this process, the preliminary extraction with ether is for the purpose of removing the large quantity of inert oil contained in the seeds, which, if present in the tincture, would cause it to become opalescent on the addition of water.

The dose of this tincture is from five to ten minims. It may also be used in doses of half a minim to two minims, frequently repeated. It is nearly color-

less, having a very pale yellow tinge ; neutral in reaction, and intensely and rather persistently bitter in taste. It mixes unchanged with water, is not precipitated by solution of tannin, but becomes markedly opalescent when ether is added to it. Solution of perchloride of iron intensifies its yellow color ; and, at the same time produces a slight haziness in the solution ; and after some hours, the slightly opalescent fluid acquires a greenish yellow color.

The chemical and pharmacological experiments which I have made show that the seeds contain a larger percentage of active principle than any other part of the plant. The pericarp of the follicles and the camose appendices of the seeds contain a relatively small quantity, and the quantity is not the same in each part of the pericarp. Details of observations on these points, as well as on the histology, chemistry, pharmacology and therapeutics of strophanthus are now nearly ready for publication ; but, in the meantime, I must express the opinion that the seeds furnish the most convenient and trustworthy preparations for therapeutic administration, and that they alone should be used for preparing the tincture.—*Md. Medical Journal.*

Use of Alcohol.

From the Paris correspondence of the *American Pract. and News*, we extract the following :

M. ALGLAVE, a well known chemist, has lately delivered a most interesting lecture. He commenced with the statement, that of one hundred individuals affected with mental alienation, forty were alcoholized. Half of the assassins were alcoholics or the sons of alcoholics. Delirium tremens kills about two thousand two hundred persons yearly. Phthisis, often consecutive to alcoholism, commits greater ravages than cholera. After having drawn this melancholy picture, the lecturer put the question : "Has drunkenness really increased?" To which he answered himself, "No, but the liquors have changed." Formerly people got drunk only with ethylic alcohol extracted from wine, now it is with amylic alcohol obtained by distillation from potatoes, beet root, rice, Indian corn, etc., that is to say, alcohols containing principles eminently toxic, which rapidly poison the subject submitted to experiment, and which alcohols are, by a sort of irony, termed "superior alcohols." To poison an animal with pure ethylic alcohol it requires as many times seven grams, seventy-five centigrams as there are kilograms in its weight ; whereas, with pure amylic alcohol, it would not take more than one gram, ten centigrams, per kilogram. In other words, supposing a man weighing eighty kilograms, it would require six hundred and twenty grams of ethylic alcohol to kill him, while with amylic alcohol it would take only eighty-eight grams. These figures prove that people now become alcoholic with seven times less liquor than formerly. To render these figures still more eloquent, and to convince his audience of the enormous difference there is between what is termed superior alcohol and ethylic alcohol, the lecturer performed some experiments in their presence, by injecting into the veins of living animals the two kinds of alcohols, in order that the audience might be able to witness the comparative results, and to draw their logical deductions of their terrible effects upon man. Two guinea pigs were the first victims. The one received a feeble dose of ethylic alcohol, the other an equivalent dose of amylic alcohol. This operation, observed the lecturer, consists in putting (a little more

rapidly, it is true) in the body of these animals that which a million of men put in their bodies each day in Paris. The guinea-pig intoxicated with ethylic acid, remained quite lively and seemed to be quite gay. The guinea-pig intoxicated with amylic alcohol, on the contrary, appeared as if struck down by lightning. The paws refused to move almost immediately after, and the animal died in a few minutes. The experiment renewed on dogs gave the same results, that is to say, vivacity of movements persisting in the dog treated with ethylic alcohol, and pronounced stupor in the dog treated with amylic alcohol. A dog injected with "absinthe," less than one centimeter cube, died after an attack of furious delirium. The remedy proposed by M. Alglave for this state of things, is to ordain that only ethylic alcohol should be delivered for consumption, but how this is to be carried into effect is a problem most difficult to solve, as it is most difficult to distinguish one alcohol from another, for it requires the most delicate tests, which would not be within the reach of wine merchants in general. Thanks to chemistry, the art of simulating products has realized astonishing results, and Germany is credited with being accomplished in the art of falsifications. From that country is manufactured and exported to all parts of the world artificial essences, extremely concentrated, by the aid of which one can obtain any liquor whatsoever. The lecturer had on his table a series of tubes containing samples of these essences, and a series of phials in which a few drops of these essences were mixed up with two hundred times their weight of alcohol. In this way he manufacturcd on the spot curacao, marasquin, kirsch, benedictine, cassis, chartreuse, white and yellow, rum of the first quality and of inferior quality, anisette, Holland gin, noyaux liquor, grenadine, etc, The audience were half terror stricken and half incredulous at the idea of swallowing these mixtures, which chemistry has brought to such perfection. It has been asked whether the essences employed to flavor different liquors were toxic in themselves. The lecturer stated that as yet no complete analyses have been made, as, their manufacture being confined to a secret corporation, there is great difficulty in procuring samples. There is, however, one thing certain, and that is, they are now universally employed and that they serve to disguise the "superior alcohols," which are known to possess the most toxic properties. M. Alglave concluded his lecture by observing that as the means to detect these adulterations are at present so inefficient, the State ought to take the matter in hand, and as it exercises a severe supervision against any fraud with regard to the purity of gold and silver, so it ought to have a severe supervision over the manufacture of alcohol, which constitutes no mean part in the alimentation of the population of this country, and consequently interests the public health in a very great measure.

DISEASES OF THE NERVOUS SYSTEM.

The Cure of Epilepsy.

In the January number of the *Alienist and Neurologist*, the reporter maintains the curability of epilepsy on the following conditions:

No epileptic can be cured who persists in the use of tobacco, alcohol or other depressing narcotic, or vicious habit, or who does not give up coffee and tea and learn to use milk and a minimum of animal food, or to use tea and coffee but very sparingly in the forepart of the day only.

He must have secured to him the habit of sleeping abundantly and quietly, avoid all sources of passionate outbursts.

His bowels should be kept uniformly regular on a laxative pill, containing aloin, colocynth and rhubarb extract, or blue mass, as indicated at night, with an eighth of a grain of extract of belladonna and a fourth of a grain of extract of conium.

The indications for the successful management of epilepsia are to put the general and whole glandular system in physiological working order, remove all sources of eccentric nerve irritation, and daily tranquillize and reconstruct the irritable cerebral centres, keeping up the treatment till all tendency to psychical or motor explosion in the cerebral centres disappear, if it takes a lifetime to do it.

The cephalic galvanization should be employed at least three times a week, with a descending and labile current, until improvement in the cerebral nerve tone is accomplished and confirmed. Ordinarily a four to six cell current from a simple McIntosh battery will suffice.

He considers skillfully employed cephalic galvanization a most essential remedy for the permanent cure of epilepsia, notwithstanding it has been disparaged by those who ought better to understand its use and powers before condemning it. The same is true in his experience with its use in chorea and all central neuropathic disorders in which morbid irritability and a tendency to "explosive" cell action—motor or psychical, as in active mania, the paroxysms of hysteria, tetanus and hydrophobia.

He sums the matter up as follows:

When the cure of epilepsy is possible by medical means, and it is often possible to cure this disease if we treat it properly, it is necessary in every case to adopt a plan which consists of

1. A judicious combination of cerebral reconstructives, conservators and tranquillizers of nerve force and regulators of explosive action, epilepsy being a discharging lesion—the brain of an epileptic expending its accumulated psychical and motor force during a paroxysm, much as a spring and pendulum clock expends its power by suddenly running down all at once, whenever the pendulum or regulating ("inhibitory") force is removed.

2. The control of the cerebral vasomotor system through persistent galvanizations (never faradizations). The galvanizations of epilepsy are with us, in some cases, an every day affair (so to speak) for several months—short seances, but long continued treatments.

3. The regulation of all the patient's habits, moral, social, psychical and physical, as much so as if he were a patient in the insane asylum.

To do this the patient must be studied and treated daily for a while, and must be as well understood by the physician as a case of pneumonia or typhoid.

We cure epilepsy in this way—not always, but quite often—often enough to satisfy us well for our pains.—*Weekly Med. Review.*

"Coca" as a Cardiac Tonic.

The *N. Y. Medical Record*, of February 26th, 1887, gives an interesting article entitled "Heart-strain and Weak Heart," by BEVERLEY ROBINSON, M.D. We extract the following (p. 238).

. . . On several occasions when digitalis has proved to be useless or injurious, I have had very excellent results from caffeine or convallaria. Certainly the latter drug is more easily tolerated by a sensitive stomach than digitalis is :

and whenever the nervous supply of the heart is especially implicated, I believe that I secure more quieting effects from its employment. Among well known cardiac tonics and stimulants for obtaining temporary good effects, at least, I know of no drug quite equal to "Coca." Given in the form of wine or fluid extract, it does much at times to restore the heart-muscle to its former tone. I have obtained the best effect from the use of "Mariani's Wine." From personal information given me by this reliable pharmacist, these results are attributable to the excellent quality of the coca leaves and of the wine which he uses in its manufacture.

DIGESTIVE TRACT.

Contributions to the Study of the Innervation of the Stomach.

TH. DOBBERT, of Dorpat: The following results were reached from certain investigations made with a view of throwing light on this question:

1. The pylorus always manifested certain automatic movements, which present a twofold type.

2. The automatism of the pylorus is to be reduced to certain known groups of ganglia.

3. The tone of the pylorus is exalted —that is, it contracts—through (*a*) local anemia, (*b*) local electrical stimulation, (*c*) electrical stimulation of vagus, (*d*) electrical stimulation downward from the first spinal vertebra.

4. The tone of the pylorus is diminished by (*a*) local asphyxia, (*b*) electrical stimulation of the upper part of the spine.

5. The tone of the pylorus is at first diminished and then increased by asphyxia.

6. The tone of the pylorus is rapidly increased and diminished by turns by electrical stimulation of the splanchnic.

7. The cardiac dilators had no dilating effect on the pylorus.

8. The antagonism of muscarine and atropine was manifest in their action on the pylorus.—*Deutsche Med. Zeitung.*—*Therapeutic Gazette.*

Chronic Dysentery.

For chronic dysentery, with a great deal of pain, Prof. DA COSTA directed as follows:

Allow only a mild diet, mostly of milk, but he may take oysters in small amounts, the milk to be diluted with lime water. Give a one grain suppository of extract of opium at night, to be repeated if pain persists. Also, ℞. Bismuthi subnitratis, gr. xv.; pulv. ipecac. et opii, gr. ij.; pulv. aromat.,gr. ij. M. Sig.—Take every third hour.—*Medical and Surgical Reporter.*

Indications for Using Hydrochloric Acid in Gastric Diseases.

The following is the substance of an article contributed to the *Deutsche Med. Wochensch.*, by Prof. FRANZ RIEGEL:

Until very recently it was commonly thought that in most cases of chronic dyspepsia the secretion of juices by the stomach was diminished. Accordingly, hydrochloric acid was nearly always prescribed, either with or without pepsine, without its being in each case proved that there was actually a diminution of secretion. The result was that only in a few cases did rapid improvement take place, while in most cases there was no result from the use of the acid, and under certain conditions there followed even exacerbation of the dyspeptic symptoms. The explanation is easy. The fact is that, instead of the secretion (particularly of hydrochloric acid) being reduced in the majority of cases of chronic dyspepsia, there is, on the contrary, in a considerable number of cases actual increase of such secretion.

Riegel does not consider it justifiable to follow Leube's plan of prescribing, in most cases of chronic dyspepsia, a trial dose of hydrochloric acid and pepsine. He recommends the use of Congo paper, first introduced into the diagnosis of gastric diseases by R. von Hösslin. This paper can easily discover 0.0019 per cent. of free acid, it being only necessary to put a drop of the contents of the stomach on the paper. If there be acid the paper turns blue, and the more acid the deeper the blue; while if there be very little or no acid, the paper keeps its red color. This method alone cannot decide whether the free acid is hydrochloric or lactic, but if there be a very perceptible reaction, the presence of hydrochloric acid may be assumed, since, even when greatly diluted, it produces a deep blue color, while lactic acid, in a concentration of under one per cent., causes a far less intense change of color.

To test the efficiency of the Congo paper, Riegel examined upwards of one thousand specimens of gastric juice with it, in every case making at the same time an artificial digestion, the quantity of the acid being compared with the Congo reaction. In every case in which the juice clearly colored the paper, the filtered fluid digested albumen well, thus bearing out Riegel's opinion that there is scaraely ever a lack of pepsine when there is a sufficient quantity of hydrochloric acid. The intense blue of the paper often pointed to hyper-acidity.

The use of the Congo paper does not do away with the necessity of other reagents, the digestive tests, and the determining of the quantity of acid, for scientific purposes. But in a doctor's practice these latter are not practicable; thus it is that Riegel recommends the use of Congo paper, (1) as a diagnostic criterion to determine whether there is sufficient hydrochloric acid or not, and (2) particularly as a therapeutic criterion to ascertain whether hydrochloric acid should be prescribed. Only when the Congo paper remains red, or becomes but very slightly blue, is hydrochloric acid to be ordered, but then in much larger doses than are generally given; never to be taken directly after a meal, but at least an hour or an hour and a half after. In cases of hyper-acidity, when the paper becomes intensely blue, instead of using hydrochloric acid, prescribe neutralizing remedies, such as bicarbonate of soda, etc.

The following example is given. The patient takes a mixed test meal. In about six hours, or earlier it may be, no other food or drink having been taken in the meanwhile, some of the contents of the stomach must be drawn, a soft Nélaton probe having been swallowed by the patient, which is easily done with a little help from the doctor. No water must be added. The microscopic appearance of the contents of the stomach may alone lead to important conclusions as to the nature of the disturbance of secretion.

Then a drop is put on Congo paper, or a strip of the paper is dipped in. If the paper turns blue, there is hydrochloric acid, and *vice versa*. Riegel repeats that in recommending this procedure, he has not in view exact scientific results, but practical help to avoid the indiscriminate use of hydrochloric acid. —*Medical & Surgical Reporter.*

DISEASES OF RESPIRATORY ORGANS.

Dr. Bergeon's Treatment of Chronic Disease of the Lungs by Medicated Caseous Enemata.

Dr. J. Henry Bennet:

Dr. Bergeon commenced his inquiries and experiments some years ago. Imbued with the microbic views of the

day, he wished to discover a mode of destroying these morbid germs. Like many other experimentalists, he tried to do so by medicinal means, by inhalations, by hypodermic injections, but all in vain. He then remembered the experiments made by Claude Bernard 30 years ago on the absorption of gases by the large intestine. That eminent physiologist discovered that carbonic acid gas, when injected, was absorbed by the intestines in large quantities, without any toxic effect whatever. The same result was obtained with sulphuretted hydrogen, although it is poisonous if inhaled. Dr. Bergeon repeated these experiments on animals, principally on rabbits, with the same result. He then tried the injection of large quantities of innocuous, but without any decided medicinal effect. It is the sulphuretted hydrogen, a powerful microbicide, which appears to exercise the therapeutic influence.

Dr. Bergeon began a series of experiments with various medicinal agents which it would be too long to enumerate, stopping at last at sulphuretted

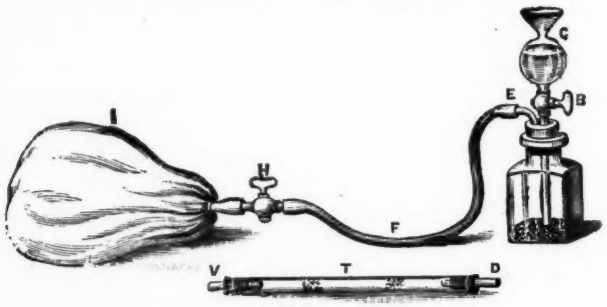


Fig. 1.

hydrogen, as evolved from natural mineral waters. He found the most efficacious to be that of the Eaux Bonnes in the Pyrenees. By passing the carbonic acid through a bottle charged with this water, it becomes impregnated with the sulphuretted hydrogen gas which it contains, and this is well borne by the intestines. It is absorbed by the intestinal venous system, and rapidly

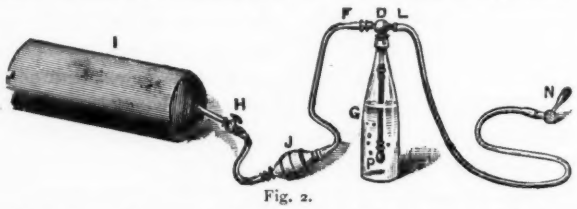


Fig. 2.

exhaled by the mouth through the lungs. In two or three minutes, on applying the nose to the patient's mouth, the air emitted is found to be tainted by the sulphurous gas. Twenty minutes is the time prescribed for the slow, gradual injection of four litres. The abdomen becomes distended; but without pain, unless atmospheric air is, from imper-

the carbonic acid gas on human beings —to the extent of two, three or four litres (quarts) two or three times in the 24 hours, with absolute immunity from any toxic effect. The gas is expelled by the mouth in the course of a few minutes after injection, without oppression, dyspnœa, or intestinal disturbance. The carbonic acid gas appears to be

fect manipulation, injected with the medicated gas. If this is the case, there are intestinal colics, or tormina, atmospheric air being apparently an irritant. It is singular to feel with the hand placed on the abdomen the gradual distension of the latter, even in a very emaciated subject, often without pain or even discomfort. Within half an hour after ceasing the injection, all the gas is absorbed and expelled through the lungs and mouth, the abdomen regaining its usual shape and softness. This I have repeatedly witnessed.

Dr. Bergeon claims marvellous therapeutic effects for this medication. He says that he has been applying it for the last two years to all the cases of chronic pulmonary and throat diseases that have come under his observation ; indeed, in more than 200 cases, although the experiments were made at Lyons, where the climate is bad, the results have been successful to a degree that has surprised and astonished him. He says that, in early phthisis, even in acute general phthisis, a form of the disease nearly always rapidly fatal, in two or three weeks there is generally an arrest, and in a few months a cure. Even in advanced,incurable phthisis great amelioration is obtained. The pulse is lowered, temperature falls, night sweats cease, appetite returns, expectoration rapidly diminishes, losing its purulent character, and the cough becomes less harassing and frequent. The amelioration, he says, is also rapidly obtained in advanced laryngeal phthisis, when all local or constitutional treatment has failed to give ease, or to arrest the ulcerative process. Asthmatic attacks are relieved with more certainty than by any other means, including the hypodermic injection of morphine. In September I was in Geneva, and saw several physicians there who were trying this treatment, as they stated, with apparent benefit. On my arrival at Mentone, in October, I found a young Russian patient of former days, æt 21, dying of advanced phthisis. We tried the injections merely to see if we could give her ease. This was certainly done, and at first the treatment was attended with such an unhoped-for rally, that the family wished to see Dr. Bergeon himself, so I summoned him from Paris. The rally, however, was only temporary, and she has since died. I had previously attended her here successfully at the age of 9, for scrofulous swellings in the neck ; and at 16 for amenorrhœa and chlorosis, and this was her end. She thus went through the various phases of hereditary phthisis. The last therapeutic effort could only be expected to ease her sufferings in some measure.

Dr. Bergeon says that non-success is generally the inevitable result of inefficient application of the treatment or of the bad quality of the sulphur water. At first the medical attendant must himself give, or see given, the enemata twice a day, slowly and cautiously, 20 minutes at least being devoted to each injection. He must begin at first with one litre, gradually increasing the amount, an hour before meals or three hours after, with careful study of what each individual is able to bear. The carbonic acid must be generated on each occasion, and the bag or balloon must be first scrupulously emptied. If any gas remains in the balloon, atmospheric air enters through its walls by endosmosis and acts as an intestinal irritant. This is the all but invariable cause of the pains when they exist. On each occasion a half-bottle of Eaux Bonnes water has to be used. If not loaded with sulphuretted hydrogen, as is often the case, it must be thrown away. Dr. Bergeon has tried chemically made gas,

but all such preparations cause pain and do not succeed. The penalty for the neglect of any of these precautions is failure. The only agent beyond the natural sulphuretted hydrogen of mineral waters that he has found quite innocuous and efficient is the fluid sulphuret of carbon, the preparation that has been found so successful in destroying the phylloxera on vines. A teaspoonful is put into a glass tube, stopped at both ends with cotton, and the carbonic acid gas is passed through the tube, having previously been washed by passing it through a bottle of pure water.

I may remark that although the bacilli diminish in number, they do not disappear from the sputa, even in the cases most completely cured. This, says Dr. Bergeon, seems to imply that their presence is not the *fons et origo mali* in phthisis. He says that he does not propose his plan as a microbicide treatment, but merely as one that succeeds. In any case this treatment will have to be put to the test of experiment. In Paris several leading physicians are now trying it in the hospitals, and report very unexpected good results.

I have seen a young Englishman, æt. 27, whom I placed under Dr. Bergeon's care four days ago. He had been suffering from severe idiopathic asthma for six weeks, had never had a good night during that time, and had passed the last five nights out of bed on a chair. He had been sent from London to try change, but had found no relief at Cannes or at Monte Carlo. The very day he arrived at Mentone, and consulted me, he was placed under Dr. Bergeon, who gave him an injection. He remained in bed all night, and this he has continued ever since. The last, or fourth, night has been the best he has had for more than six weeks. He now feels free from oppression and quite well.

Dr. Morel's gas injecting apparatus, used by Dr. Bergeon. Fig. 1. About three tablespoonfuls of bicarbonate of soda are placed in the bottle A, which is then closed with the india-rubber stopper, inserting the glass balloon C, with a stem descending into the bottle. Dilute sulphuric acid (one to four of water) is then poured into the balloon, and allowed to drop into the bottle. The carbonic acid gas thus generated passes through a gutta-percha tube F, supplied with stop-cocks into the gutta-percha sac previously carefully emptied of atmospheric air by folding. When the sac is filled the stop cock H is shut.

Fig. 2. The sac filled with gas is then connected to a gutta-percha tube provided with a pressure sac J, and then to one end of the cross branch of an instrument calied *barboteur* D, which is introduced into the bottle containing the mineral water. The vertical part of this instrument reaches the bottom of the bottle, from whence the gas which escapes, loaded with the medicated agent, passes into another tube L, for anal injection.

If sulphuret of carbon is used, a teaspoonful is poured on cotton previously placed in the glass tube T (fig. 1), the tube stopped with a little more cotton and then placed on the one that connects the *barboteur* with the anal tube. The carbonic acid gas, the medium in this case, is passed through plain water instead of through mineral water. When mineral water is used, about six ounces of hot water should be put into a large bottle, and the half bottle of Eaux Bonnes water added, so as not quite to fill the bottle. This is to warm the gas. Dr. Bergeon has tried many sulphur waters, but has found none equal to Eaux Bonnes.—*Brit. Med. Jour.*

[The cuts for this article were kindly loaned us by James W. Queen & Co., Philadelphia, Pa.]

CONSTITUTIONAL DISEASES.

Thallin in Typhoid Fever.

The introduction of such drugs as "kairin," "antipyrin," and "antifebrin" has somewhat diverted attention from a very powerful antipyretic agent—viz., thallin. Professor EHRLICH lately presented to the Clinical Society of Berlin the results of some researches he has been making with this last named agent, especially in the treatment of typhoid fever (*Münch. Med. Woch*). From experiment, he found that after administering the drug to animals it was not retained in the nerve centres, but mostly in the fatty tissue of the body. He also found that there was a marked difference in toxic action, according as to whether it was administered by the mouth or subcutaneously, the greater inertness of its effect in the former case being attributable to the hindrance to absorption from the presence of intestinal contents. The lesions induced by a toxic dose comprise fatty degeneration of the kidneys, necrosis of the salivary glands and pancreas, and hemorrhagic infarcts in the renal pyramids. The chief action of thallin is antipyretic, but it is capable also of moderating inflammation. As regards typhoid fever it was administered by Ehrlich in two different ways. The first plan consisted in commencing with doses of 0.06 gram. every hour, and reducing the dose to the minimum required to give any effect. The other plan was to commence with a minimum dose, and increase it until an effect was produced, and then to continue the prescription at the dose thus attained. The action of thallin is especially noticeable in its effect on the sensorium and general condition of the patient, who presents the appearance of convalescence, whilst the splenic swelling and roseola are still present, and if the drug be discontinued the temperature will rise again. It is not therefore surprising to learn that whereas the twenty-eight cases treated by bathing, the average stay in the hospital was thirty-seven days, of seven cases treated by thallin (minimum doses) the duration of teatment was forty-seven days and cases on a scale of progressive doses thirty-eight days. However, Professor Ehrlich claims advantages for the drug in the absolute control it exerts over pyrexia, and the sense of well being enjoyed by the patient. There were no intestinal hemorrhages in these cases, and no instance of perforation. The kidneys were not affected, but sequelæ in the form of hyperæmia and œdematous swellings seem due to the use of the drug. It was not thought that thallin had any specific action against the typhoid bacillus, but it did seem to limit the degree of intestinal ulceration. Prof. Ehrlich considers it to be on a level with the bath treatment. Dr. Frankel pointed out that if the statement was correct that thallin is not found in the nerve centres, its action in reducing temperature was rather inexplicable. He had exhibited it in increasing doses, but could not say that the patients experienced any special benefit attributable to the diminished fever. Dr. Guttmann was not favorably impressed by its use, and had noted the production of rigors.— *Lancet.*

Some Points in the Pathology and Treatment of Fever.

At a meeting of the Manchester Medical Society, DR. JAMES NIVEN read a paper on the above subject. The points considered were formulated in four propositions :

1. Self-protective fevers tend to become milder the longer they are settled

in a community. The protection conferred was regarded as an adjustment of the tissues, which would be handed down from generation to generation in the case of any disease which was spread over the greater part of a community. In co-operation with this adjustment is the elimination by death of people specially liable to the disease, In opposition to it is the tendency of children to take disease in the same manner as the parent. As illustrations were considered typhoid fever, measles, small-pox, yellow fever, and syphilis.

2. The second proposition was that the phenomena of fever are probably due in the main to chemical poisons. It was attempted to be shown that chemical matters secreted by the fungi or dead fungi, were sufficient to account for the phenomena of fevers, while in some diseases it was taken as proved that only chemical poisons were admitted into the circulation.

3. The third proposition was that the nervous system is the liberator and controller of heat and fever. It was contended that a large amount of heat was due to metabolism of muscles, but the experiments of Pflüger and Samuel had shown that muscle, under normal circumstances, underwent this metabolism as the effect of nervous impulses. While admitting the vaso-motor system and heat inhibitory centres as probable causes of some pyrexial conditions, it was suggested that excitation of the anterior cornual cells in the spinal cord, and of their congeners in the medulla and brain, would better explain the pyrexial conditions of such fevers as typhoid and typhus. Reasons were given for regarding the figures arrived at by Dr. Burdon Sanderson, from calculation of the excreta in health and in fever, as showing an increase in fever of heat requiring to be eliminated.

4. The fourth proposition was that the proper treatment of fevers is partly dietetic, partly calmative. The treatment on these lines was sketched. Easily assimilable materials, such as peptonized meat and milk, and sugared fruit are necessary to maintain the strength, to prevent complications and tropho-neuroses; perforation in typhoid may be regarded as in part a tropho-neurosis. Calmative treatment, such as a skillful nurse, free from fuss, removal of irritations, and antipyretic treatment, are necessary for the same objects. Antifebrin was regarded as, perhaps, the best antipyretic.—*British Medical Journal.*

The Diagnostic Value of Fever Blisters.

It has been maintained that fever blisters (*herpes labialis*) never make their appearance in dothinenteritic fever, and many of the best practitioners go so far as to declare that even where all other typhic symptoms are present, the appearance of the blisters must be accepted as proof of the fact that the malady under consideration is not typhous. Prof. Hagen, of Leipzig, for instance, mentions fever blisters as a negative pathognomonic symptom excluding the diagnosis of abdominal typhoid. Baerensprung declares that he never saw fever blisters in typhus. Hardy says the appearance of herpes labialis forthwith precludes diagnosis of typhoid. Hebra, on the contrary, maintains that he has seen fever blisters in and after undoubted cases of typhic fevers, and in this opinion he is sustained by others of the Vienna school. M. Spillman has recently communicated to the *Revue Médicale de l'Est*, the details of three cases, which go to disprove the older theory and sustain that of Hebra. These three cases occurred in the course of a month and in a clinic of only twenty

cases of typhoid. The author (Spillman) asks, in the light of this experience, whether the appearance of fever blisters has really the diagnostic significance hitherto accorded. He is inclined to believe, rather, that their occurrence is quite frequent, and that they are overlooked, being usually of trifling extent. In women, where the herpes frequently chooses the genital labia, rather than the buccal, as the seat of its appearance, it would naturally frequently escape notice.—*St. Louis Med. and Surg. Jour.*

Arsenious Acid as a Prophylactic in Malarious Districts.

One of the great difficulties encountered in malarious districts, is to find an easy and convenient means of preventing the paroxysms of fever which so often disable artisans and laborers, and which at times render utterly unfit for service whole armies of troops.

Tommasi Crudeli has found, after much study, covering a very large experience, that arsenious acid in doses of one-sixtieth of a grain, has proven the most satisfactory prophylactic. The Greeks, Romans, and Arabs of Gaudaloupe, have long inclined to rely upon the juice of lemons, prepared by cutting the lemon in small fragments and boiling it until its bulk has been reduced one-half. It is then squeezed out from the pulp, filtered, and taken cold. The objection to quinine is that its effects are powerful upon the nervous system and transitory upon the bacillus malariæ.

It is thought by many that malarious diseases prevail most frequently in winter, in consequence of the fact that during the summer large numbers of spore cells are blown into the house, and find lodgment upon the rough surfaces which, when the house is closed in the winter, the inhabitants are obliged to breathe large quantities of these spore cells, and the bacilli develop enormously, producing attacks of various forms of periodic disease. In summer the admixture of pure air is much greater, because people may freely go out doors, and the quantity of these germs taken into the air passages must be relatively small.—*Progress.*

The Treatment of Rheumatism.

Dr. George L. Peabody treats his cases of acute rheumatism with a combination of salicylic acid and iron, the formula for which was obtained in the following way :

About a year ago a nurse was pouring into a common receptacle some remnants of different medicines, when she noticed that a black precipitate formed by iron was turned into a transparent solution of a rich red hue, as soon as she poured the fluid contents of another bottle. Being a young woman of an inquiring turn of mind, she asked the house physician the cause of this phenomenon. The house staff, to help her in her desire for information, experimented with the drugs that she had been throwing out, and ascertained that her manipulation of chemicals had been this: She had first poured into the receptacle a salicylic acid. Into this she had poured a solution of iron, with the result of producing a black precipitate. To this she added some sodium phosphate, with the result of producing a clear red solution.

This at once gave a clue to the means of combining iron and salicylic acid without forming a precipitate. The facts were submitted to the apothecary of the hospital, and from them he produced the following formula, which has been in constant use nearly a year: ℞. Acidi salicylici, gr. xx; ferri pyrophosphatis, gr. v; sodii phosphatis, gr. l; aquæ, ℥ ss.

This method of giving this drug in rheumatism has now been fairly tested. It may be said to agree as well with the stomach as any other, and it has the great advantage of not being followed, even if its use be long continued, by the severe anæmia that so often follows the use of salicylic acid, if it be given without iron.

The dose which is described in this formula is given every two hours until improvement justifies a diminution in the frequency, or until constitutional effects are pronounced.—*Med. News.*

Indian Hemp as a Hydrogogue.

DR. RUSCH, in the *London Medical Record*, calls attention to Indian hemp (*Apocynum Cannabinum*) as a most valuable hydrogogue, which has the power of arresting serous effusion of the pleura. If it was brought to us from some far off country, we would value it more highly. Home weeds fail to inspire confidence. R. G. E.

New Antipyretics.

A glance at the following list of antipyretics, will give some idea of the rapid progress made in a single department of therapeutics in the last few years. Every few weeks some new member is added.

1. Acetal-amido-phenol.
2. Aconite.
3. Anilin.
4. Anilin-quinolin.
5. Anisol.
6. Antifebrin.
7. Antipyrin.
8. Antitherimin.
9. Benzoic acid.
10. Carbolic acid.
11. Ethyl-thallin.
12. Hydro-quinon.
13. Kairin.
14. Kairolin.
15. Methyl - oxy - quinizin.
16. Oxy-quinolin.
17. Para-oxy-quinolin.
18. Para-quin-anisol.
19. Quinine.
20. Quinizin.
21. Resorcin.
22. Salicylic acid.
23. Salol.
24. Tetra - hydro-oxy-quinolin.
25. Tetra - hydro-para-oxy-quinolin.
26. Tetra - hydro-quinolin.
27. Thallin.
28. Thymol.

Each one has a special advantage over the others in particular cases, but taken all in all, quinine is pre-eminent. Nearly all of them are products of benzol, and possess chemical constitutions closely akin. Quinine has not yet been synthetically produced, although such a claim has several times been made.

R. G. E.

Sulphate of Morphine and Lime Water

"Physicians who prescribe sulphate of morphine in solution in lime water, do so at the risk of poisoning their patients."—*Pharm. Era.*

[The small amount remaining in solution as compared with what is precipitated as free alkaloid, makes the chances very great of the patient getting most of the morphine in the last dose. No poisonous alkaloid or medicine containing such, should ever be ordered with any alkali, alkaline earth, their carbonates or bi-carbonates, for the same reason.] R. G. E.

Aretrial of Drumine.

Aretrial of drumine fails to confirm the claim of its great anæsthetic effects.

R. G. E.

Pilocarpidine.

"Pilocarpidine, a new alkaloid from jaborandi, has been found by Mayer to have all the medicinal qualities of pilocarpine without its depressant action on the heart."—*Western Druggist.*

Incompatible Prescriptions.

The following examples of untoward results following the combination of familiar prescriptions, are given in the *Deutsch-Amerikanische Apotheker-Zeitung*, as original with CH. T. P. FENNEL, in "The Principles of Pharmacy." While these incompatibilities may be well known, yet their repetition as a reminder will not be devoid of interest.

A common and dangerous action is that resulting from the mixture of alkaloids with alkalies or alkaline salts, of which the following is an example: ℞. Strichninæ sulphat., gr. ss; elixir brom. chloral., ℥ viii. M. Sig.—A teaspoonful morning and evening.

The result of this mixture is a colorless solution, from which is deposited in a few hours a crystalline precipitate, which is the greater portion of the strychnine ordered. Although the elixir is not officinal, it is frequently prescribed, and its potassium bromide will deposit the strychnine as an insoluble bromide. This last dose taken, unless great care to shake the mixture well was observed, would result disastrously.

The following prescription may also result badly: ℞. Morphin. sulphat., gr. ii; liq. ammon. acet., f ʒ ss; aqu. destillat., syr. simpl., āā f ℥ ii. M. Sig.—Teaspoonful doses as ordered.

When the diluted acetic acid has been neutralized, and an excess, although not great, of ammonium carbonate is present, the precipitation of the alkaloid will result as in the first instance.

The following may also prove incompatible: ℞. Potass. iodid., ʒ i; spts. æther. nitros., aquæ, āā ℥ i. M.

When the spiritus ætheris nitrosi is not free from nitric and acetic acids (a result which is produced by the action of the air) iodine will be set free, and a colored solution take the place of a colorless one. The chemistry of the decomposition of the spiritus ætheris nitrosi is as follows: $2(C_2H_5NO_2)+3O_2=2(HC_2H_3O_2)+2HNO_3$.

A familiar example of decomposition occurring in the organism when chemical substances are given, is found in the simultaneous use of calomel and potassium iodide, as follows: ℞. Hydrar. chlo. mit., gr. iv; sacch. lac., gr. x. M. F. pul. No. 10. Sig.—A powder 3 times daily.

Also ℞. Potass. iodid., ℥ i; aqu. destillat., ℥ iv. M. Sig.—A teaspoonfull every three hours.

A reaction between the calomel and potassium iodide occurs in the stomach, and bad results, through the irritating mercurial formed, may occur.

An explosion or unfortunate formation of gas may result from this prescription: ℞. Ammon. carbonat., ʒ ii: syrup. scillæ f ℥ i; syrup. senegæ, ℥ i. M.

The acetic acid in the syrup of squill has been overlooked in this combination; its union with the ammonium salt would result unfortunately through the liberation of carbonic acid gas.

In those cases where ingredients are ordered which even in a measure tend to produce insoluble compounds, the ingredients should be diluted as much as possible, that the resulting coagulum or compound may be easily dissipated by shaking. This is illustrated by the prescription; ℞. Liq. ferri chlorid., ʒ iss; muc. gum. arab., f ℥ i; aqu. destillat., f ℥ iv—in which the iron and mucilage should both be diluted before mixing.

The same caution obtains when tannin or liquiritia is combined with metallic or alkaloidal salts. ℞. Extr. hyoscyami aq., ʒ ss; tinct. valerian., ℥ iii; spir. ætheris nitrosi, ʒ vi. M.

In the above the extract is to be diluted before mixing with the spiritus ætheris nitrosi.—*Ther. Gazette.*

How to Preserve the Dead Body.

Dr. H. Speier, of Duluth, Minn., writes as follows to the *Pharmaceutical Record:*

I will briefly give the method for preserving bodies, invented a few years ago by Wickersheim, of the Anatomical Museum of Berlin. The process is simple and cheap, and the inventor claims that by it the color, form and

flexibility of dead animal bodies and all their tissues are completely preserved. He says that after several years, sections for scientific or legal purposes, can be made, decomposition and even foul odor being entirely absent. The preserving fluid is made as follows: Take of potash (caustic potassa), 60 parts; arsenious acid, 10 parts; dissolve by heat in 500 parts of water, then add enough water to make 3.000 parts, in which dissolve alum, 100 parts; salt, 25 parts; saltpetre, 12 parts. After cooling, filter the solution. To 10 litres of this neutral, colorless and odorless fluid, add 4 litres of glycerine and 1 litre of methyl-alcohol. Inject the body with the preserving fluid, then immerse it in the same for a few days. Rub and dry the body, envelop it in a sheet soaked with the same fluid, and place in an air-tight receptacle.—*Coll. and Clin. Record.*

Opium Poisoning.

In a series of articles by WM. MURRELL, published in *Medical Register*, we extract the following on opium:

How taken.—Any of the officinal preparations of opium might be taken—tincture, extract, liquid extract, wine, etc., or it might be taken in the form of "Black Drop," "Godfrey's Elixir," "Dalby's Carminative," or "Battley's Solution." Children often poisoned by infusions or decoctions of the leaves, seeds, or capsules of the poppy, given to induce sleep or drowsiness. Cases of accidental poisoning from eating blossoms and fruit of the red poppy. Very commonly employed for suicidal purposes, also for murder. Cases of poisoning from use of opium in enemata and suppositories and from use of laudanum on poultices.

Symptoms.—Type of all simple narcotic poisons. A preliminary stage of mental excitement of an agreeable nature, with acceleration of the heart's action. Soon replaced by headache, weariness, a sensation of weight in the limbs, incapacity for exertion, sleepiness, diminution of sensibility and contraction of the pupils. At first the patient can be roused with difficulty, but after a time it is impossible to make the slightest impression on him, reflex action ceases, the eyes are half shut, the pupils fail to respond to light, the muscles are relaxed, the lower jaw falls, the skin is cold to the touch, and the face and lips are either pale or cyanotic. Respiration soon gets slow, irregular and stertorous, the pulse is weak and compressible, and death ensues.

Diagnosis.—Opium poisoning may be mistaken for acute alcoholism. The history of the case, the odor of the breath, or of the vomited matter, and the presence of either alcohol or morphine in the urine are the chief points to which to attend. At the same time it must not be forgotten that a man who has been drinking may poison himself with opium, and opium is not unfrequently taken in porter. In profound drunkenness the pupils are usually dilated. To distinguish opium poisoning from apoplexy, look for paralysis of limbs or facial muscles, examine the condition of the heart and blood vessels, and see if the pupils are equal. Distinguish from poisoning by chloroform, ether, etc., by smell in breath or in vomited matters. To distinguish from uræmic poisoning, history of case, condition of pupils, examination of urine. Are not cases of acetonæmia or diabetic coma sometimes mistaken for opium poisoning?

Fatal Dose.—Two and a half grains of extract equal to four grains of opium, fatal. In one case death from a dram of laudanum. Recovery from much larger doses, even from four or

five ounces of the tincture. Children very susceptible to opium. The more strongly the pupils are contracted the worse the prognosis. Early vomiting is a good sign, and the occurrence of copious sweating is favorable.

Treatment.—1. Stomach pump or emetic of mustard (a tablespoonful of the powder in water), or of sulphate of zinc (twenty grains in water), or of ipecacuanha (a scruple of the powder in water). Apomorphine, a hypodermic injection of one tabloid or five minims of the 1 in 50 solution.

2. *Rousing.*—Keep the patient walking about, flap him with a wet towel, shout at him, pinch him, and rouse him by every means in your power. Apply the battery to the limbs sharply. Ammonia or sal volatile to the nostrils. Do not give wine or brandy.

3. *Coffee.*—A pint of hot strong coffee injected into the bowel.

4. *Douche.*—Pour a jug of cold water over his head from a height, and repeat it frequently, drying him in the intervals.

5. *Atropine.*—Give a hypodermic injection of gr. 1-20 of sulphate of atropine (three tabloids or five minims of the B. P. solution) if signs of failure of respiration. If atropine not at hand, give 30 minims of tincture of belladonna hypodermically or by mouth. Either might be repeated in a quarter of an hour. It is said that gr. 1-20 of atropine will antagonize one grain of morphine.

N. B. Some recommend the injection of from gr. $\frac{1}{4}$ to $\frac{1}{2}$ of atropine, to be repeated in two hours if necessary.

6. *Nitrite of Amyl.*—Inhalations of nitrite of amyl freely.

7. *Artificial Respiration* should be kept up for at least two hours.

Ferments in Milk-Juices.

A. HANSEN has examined the latex of different species of plants for the presence of ferments. He finds none in the Euphorbiaceæ, in *Ficus elastica*, Scorzonera, Taraxacum, or the juice of the opium poppy. The latex of *Ficus caricâ*, on the other hand, contains principles capable of effecting four fermentative changes; they peptonize albuminoids in the presence of either alkalies or acids, act like diastase on starch, and coagulate the casein of milk. Twenty to one hundred grammes of fibrin, previously caused to swell by immersion in hydrochloric acid of 0.2 per cent. strength, are completely dissolved in ten to thirty minutes when treated at 40° with two to three cubic centimetres of this latex. The products of this digestion are the same as with pepsin; yet the two ferments are not identical, since the Ficus latex peptonizes in presence of alkalies as well as acids, although more slowly. Probably there are two peptic ferments present, one acting in acid, the other in alkaline, solutions.

By digestion with hydrochloric acid the latex entirely loses its peptonizing properties; digested with sodium carbonate (which destroys the activity of pepsin), it retains them intact. If a few drops of the latex be added to milk, which is then raised to the boiling temperature, the casein is at once precipitated. Incipient ebullition, therefore, does not destroy the curdling power of this latex, although prolonged ebullition does, and even a temperature of 65° if continued for two hours. The diastatic action of this latex is demonstrated by the partial transformation of starch-paste and glycogen into sugar. When the latex is precipitated by alcohol, and the precipitate taken up with water, the action on milk and on starch is found to persist, while that on fibrin disappears. The latex of *Carica papaya* peptonizes, precipitates casein, and transforms starch into sugar.

The author does not consider that these vegetable ferments play any *rôle* in the nutrition of the plant.—*American Journal of Pharmacy.*

Paris Hospital Tharapeutics.

A correspondent of the *Philadelphia Medical Times* gives the following brief glance at the treatment of disease in one of the large hospitals of Paris presenting as briefly as possible—and yet as completely as possible—the kind of medicinal treatment employed, taking the service of Professor Germain Sée as a guide. The following is from the official book of Salle (or Ward) Ste. Jeanne, Hotel Dieu:

Diagnosis.	Treatment.
Anæmia	Hemoglobine and pepsin.
Chlorosis	Sodii arsenias.
Zona	Antipyrine, 4 grammes.
Hemiplegia	Todd's potion.
Peri-uterine phlegmon	Injections, terpine, nux vomica, and gentian.
Syphilis, cerebral	Biniodide of mercury, sulphur baths.
Chlorosis	Ferri et potassii tart., sulphate of aconitine.
Albuminuria	Tannin pill, ergotin pill, terpine pill.
Mitral insufficiency	Sparteine sulph., convallaramin.
Pericarditis and aortic reg.	Iodide of potash, digitalis, sparteine.
Myocarditis	Caffeine, sparteine.
Thoracic varix	Tinct. hamamelis, antipyrine, Vichy water.
Typhoid Fever	Charcoal powder, naphthaline, quinine sulph. rectal injections.
Amyothropsia	Pill opium, mercurial frictions.
Mitral insufficiency	Digitalis infusion.
Dyspepsia	Charcoal powder, benzoate of soda, terpine.
Diabetes	M. Sée's diet, arsenic.
Hydrarthrosis	Antipyrine.
Phthisis	Arsenic, pill opium.
Dilatation stomach	Ipecac powder (5 centigrammes), cocaine hydrochlorate (5 centigrammes); suppress all vegetables.
Not made	Jalap.
Emphysema	Terpine, iodide of potassium, pill opium, sparteine sulphate.

Of course, in this rapid list of actual patients and treatment, we have not time to indicate the symptoms for which some of the remedies were given; but those accustomed to hospital practice will see the reasons, and be able to compare the above with their own practice.—*Med. and Surg. Reporter.*

Mixture of Oil of Wintergreen.

Much difficulty has been reported in finding an eligible mixture containing oil of wintergreen, so valuable in acute rheumatism, and also employed in other affections. The following may be commended: ℞. Olei gaultheriæ, ♏clx; mucilag. acaciæ, f ℥ ij; glycerinæ, aquæ, āā f ℥ j. M. Sig.—Dose, one to two teaspoonfuls, as may be required.—*Ibid.*

Treatment of Erysipelas.

Dr. Haberkorn, the antiseptic treatment of erysipelas will have, in conformity with the late pathogenetic opinions, the most followers, no matter if the disease is the result of a wound, infection, or general. The only point left is to find the best application. Tar ointments, carbolic oil and Hucter's hypodermic injections of carbolic acid, will probably be surpassed in a high degree by Kuehnast's multiple incisions and scarifications. The latest treatment of infectious diseases presents a certain topical dilection of the antiseptics. The various preparations of salicylic acid have always proved best in infection of the joints. Calomel and sublimate seem most successful in infections of the mucous membrane of the intestinal tract. The benzoate of soda, which was first recommended by Klebs as a useful disinfectant, has been dispensed with too soon, having at first engendered very sanguine hopes in the treatment of phthisis. In quite a number of cases it has proved to be a good remedy, especially in skin diseases, in erysipelas, measles and scarlet fever. I have used benzoate of soda in erysipelas in doses

of 15 to 20 grammes (4 to 5 dr.) *pro die* in mucilaginous solution or in seltzer water with good success, and without annoying the patient. The temperature became nearly always normal after two days, accompanied by a comfortable feeling of the patient, rapid disappearance of the local symptoms of the disease, and fast desquamation of the skin. All local appliances were avoided. The number of cases treated in this manner amount to about fifty, and not one case ended fatally. In two cases the expected rapid effect of the medicine did not appear, which I consider due to an insufficient administration of the remedy. Both cases were not difficult, and healed soon after correcting the mistake. There is no aversion of the patient against the remedy.—*Centblt. f. Chirg.*—*Southern California Practitioner.*

The Blood in Leukæmia.

According to Dr. Prus (*Medycyna and St. Petersburg Med. Wochenschrift*), who bases his statements on five cases of his own, leucincrystals are met with only in those cases of leukæmia in which the lymphatic glands are diseased. The number of Bizzozero's corpuscles is, as a rule, very considerable, while Charcot-Neumann crystals are very seldom found. Karyokynesis of leucocytes is always largely increased.—*Medical and Surgical Reporter.*

DISEASES OF THE NERVOUS SYSTEM.

Night Palsy.

Dr. W. E. Stevenson (*Practitioner*) contributes a short article on a special form of numbness of the extremities occurring, for the most part, during the night, and to which Weir Mitchell has given the name of night palsy.

Dr. Ormerod's description is quoted as follows :

The symptoms are remarkably definite in character. They occur in women, usually about the climacteric period, and begin in the night. On waking, the patient has a feeling in the hands and arms (commonly on both sides) of numbness, deadness, pins-and-needles ; sometimes there is actual pain, severe enough to wake her. There is also loss of power, the hands and arms become useless, and she cannot hold things. This may so far predominate that the patient comes to be treated for a supposed paralysis. Sometimes also the patients say that the hands swell, the veins swell, etc., at the time. The symptoms pass off in a little time, and rubbing suggests itself as a natural remedy. But occasionally they manifest themselves in the day time also, and then principally when the patient sets about her ordinary work —washing, scrubbing, needlework, etc. The author has had several cases of the affection, and his observations agree, in the main, with the foregoing description. Though mostly seen in women at or near the climacteric age, it is occasionally met with in men, in whom it is likely to be more severe and obstinate. Some attribute it to anæmia, others to gastric disturbances. All of the author's patients recovered with rest, bromide of potassium, and galvanism.—*New York Medical Journal.*

The Treatment of Chorea Minor.

Dr. Frühwald reports brilliant success in most cases of chorea minor, and in the worst cases satisfactory results, from the subcutaneous injection of arsenic. In a surprisingly short time, one to two weeks, improvement occurs, and in three or four weeks a complete cure has taken place. A solution of equal parts of Fowler's solution and distilled water is made use of in the application of the remedy ; the solution is filtered each

time before injecting, and especial care is taken to have it fresh. Frühwald begins with one division of a Pravaz syringe of the solution, and increases the quantity one division every day until eight or ten are given at one injection. To prevent abscesses, the skin is washed before the injection with thymol, and the injection itself is deeply made. The large doses even are followed by no untoward results.—*Weekly Medical Review.*

Consciousness in Epilepsy.

BANNISTER, in a recent article on this subject, comes to the following conclusions :

1. That the epileptic discharge may, in rare instances, take place in motor regions of the cerebrum, and not involve at all, or to any extent, those parts concerned in psychic functions so far as to seriously affect or abolish consciousness, meaning by that term a vivid sense of being and knowledge of one's thoughts and actions, continuous with that in the normal condition.

2. That in the so-called automatic epileptic conditions there may be a state of double consciousness, as it may be termed, in which it can not always be said that the mental functions in the abnormal condition is less perfect and complete than in the normal state.

3. The post- or pre-epileptic outbreaks of violence, the so-called epileptic mania, are not necessarily attended with loss of consciousness, but may be, in some cases, simply manifestations of extreme morbid bodily and mental irritability, with loss of self-control, but with no more impairment of consciousness than might be caused by similar emotional disturbance under other conditions.

4. That there may be a true automatism in epileptics, not attended with any apparent loss of consciousness, and due, possibly, to the rapidity of some psychic reflexes exceeding the limits of the reaction time necessary for their conscious recognition.

5. That the definition of epilepsy which makes loss of consciousness an essential character, is an arbitrary one, not supported on pathological or clinical grounds, either in the ordinary convulsive phase of the disease, or in its psychic manifestations.—*Ibid.*

A Remedy against Epilepsy.

Extr. fab. Calabar, gr. vijss ; spir. æth. f ʒ jss ; aq. amygd. amar. (sive. aq. menthæ pip.) f ʒ vss. M. Sig : Five to eight drops *t. d.* for children ; eight to fifteen drops *t. d.* for adults.—*Pharm. Zeitschr. f. Russland.—Ibid.*

Home Treatment of Mental Disease.

In the course of an interesting paper in the St. Louis *Courier of Medicine*, Dr. EDWARD C. MANN says :

In puerperal insanity I have seen good results in home treatment, commencing with a full purgative dose of hyd. chlor. mit., followed by salines and then gin, ether and opium, as I have mentioned, at night, to produce sleep. In delicate neurasthenic women with uterine complications, a good nurse, perfect rest, one dram of Warburg's tincture daily before breakfast, the fluid extract of coca when indicated ; quiet nervousness by either the compound bromide mixture, the formula for which is given below, or by the following : ℞. Zinc. valerianat., ʒ j ; ext. belladonnæ, gr. jss. M. Div. in pill No. 30. Sig. One pill every two hours.

This simple treatment, with massage, milk diet and electricity, will save many cases of neurasthenia and hysteria from an insane asylum. I treat many such every year, admitting them as patients into my own family, and witness rapid

cures. There is another form of mental excitement which occurs in women at the climacteric period, and which often runs into insanity that consigns them to asylums for years. I have checked this peculiar form of mania, which is characterized by suspicion, sleeplessness and refusal of food, with hot vaginal douches, given by a trained nurse daily, and the following pill, given every hour, or two hours, as the necessities of the case demand: ℞. Pulv. camph., grs. vj : ext. hyoscyam., grs. xiv ; pul. digitalis, grs. iv ; mucil. acaciæ, q. s. M. Ft. pill No. 6.

This pill can be followed by the compound bromide mixture, the formula for which is here given, until the patient is well : ℞. Sodii bromidi ; ammonii bromidi, āā ℥ ss ; pot. bromidi, ℥ j ; syr. hypophosphitis comp., f. ℥ iij ; syr. tolut., f. ℥ j; aquæ menth. pip., f. ℥ jss ; liq. pot. arsenit., f. ℥ j. M. Dose, two teaspoonfuls thrice daily in water.

Port wine at dinner, plenty of malt and hypophosphites, together with that admirable nerve tonic, Warburg's tincture, in one dram doses before breakfast. Advancing age brings with it, perhaps, depressing cares and irritating environments, or the brain has been overworked and overwearied, so that very few women reach the menopause with a vigorous and well poised nervous system. One great reason for this, I think, is that very few women will give the necessary time for the recuperative rest to mind and body. Many women who are inheritors of neuropathic tendencies are attacked by mental disease before the menopause is reached, and are cases of psycho-sensory insanity. They are affected in the moral or emotional part of the mind, while the intellect remains apparently unaffected. It is an insanity of feeling. These women show their mental alienation by a change from affectionate wives, good mothers, and careful housekeepers, to a condition in which they lose all interest in husband, children, and house. Their affections are perverted ; they are dissatisfied with everything, and will evince hatred of husband and children, and of those nearest and dearest. Yet the very same woman will join in conversation with strangers with the full command of the intellect, so that a casual or even a careful observer would not imagine that such a case was one of true psycho-sensory insanity. There is a morbid perversion of the affective life and a change in character. The conduct is as bad as possible at home, and fairly good, perhaps, when among strangers. These women are prompt and subtle in finding excuses, and so plausible as to deceive the public respecting their unsoundness of mind. I have seen many such cases during the past fifteen years, and the symptoms I have detailed are perfectly characteristic.—*Med. and Surg. Reporter.*

Points in the Diagnosis of Brain Diseases.

NOTHNAGEL, in an article read recently before the College of Physicians of Vienna, gave the following diagnostic points on the value of headache as a symptom of brain disease :

1. In brain tumors headache is of very little value in diagnosis ; we know that the cerebral substance is not sensitive; the pia mater but little sensitive, and the dura mater only, of the cranial contents, is sensitive. Headache occurring in cases of cerebral tumor is explained by tension upon dura caused by the bulk of the tumor.

2. Headache is present in inflammatory processes situated in the meninges, and more frequently in lepto-meningitis than in pachy-meningitis; in lepto-meningitis the headache frequently changes its characters.

3. Headache is present in chronic cerebral hyperæmia and also chronic anæmia: it is questionable whether anæmia alone is the important element in chlorosis, as we see most marked cases of pernicious and intensive anæmia caused by carcinoma in which headache is absent. Headache is rarely present in insular multiple sclerosis; in cerebral abscess its presence and character are extremely variable. The location of the headache gives no certain diagnostic point for the determination of the location of the lesion, although in general terms it may be said in the majority of cases the lesion is where the headache is.

Vertigo, while common in various cerebral diseases, is of little importance; when it is excessive and accompanied by incoördination, such as occurs in diseases of the crura of the cerebellum, it has decided import.

Vomiting is rarely of great value in diagnosis; it aids chiefly in the location of lesions. It can be present in cases in which the amount of blood in the brain is abnormal, and an irritation of the centre of emesis in the medulla oblongata exists.

We are aided by this symptom in diagnosticating lesions of the tissue in the posterior fossa of the skull; for example, tumors which originating in the cerebellum, press upon the medulla; or tumors of the medulla or pons.

Fever is an important symptom in but few cerebral diseases. The highest temperature is present in meningitis, especially in its infectious form. But as peritonitis without fever is often observed, so meningitis may run its course without marked rise of temperature. Fever occurs in cerebral abscess and septic phlebitis of the cerebral sinuses; it has then more often the characteristics of septic fever with pyæmic chills, and does not depend directly upon the phlebitis, but upon pulmonary embolism. Fever also occurs in the course of progressive paralysis. The pulse gives no certain criterion for the diagnosis of a given cerebral disease. It is often, however, of no value in the abnormalities of its rhythm in beginning meningitis, in the form of regularly occurring *arythmie* (first described by Nothnagel), where a certain periodicity in the variations of the pulse frequently occurs; the increased number of beats endures but a few moments, and is caused by an irritation of the pneumogastric nerve. The respiration gives no information in the diagnosis of brain diseases.

Regarding disorders of speech, aphonia is seldom present, and the location of the lesion which could cause it, in the medulla oblongata, is such that death generally results speedily in these cases. Speech is affected most often in progressive bulbar paralysis, and frequently in multiple sclerosis in patches. Speech is also implicated in progressive paralysis when the origin of the hypoglossus is affected; also in cortical disease of the lower portion of the central gyrus.—*Wiener Medizin.—Med. News*

Salol in Neuralgia.

Dr. Archenbach, of Corfu, reports having relieved himself of a bad attack of sciatica with two doses of salol. He took half a grain in the evening and a grain at midnight, slept well the rest of the night and remained free from pain afterwards. It is well worth trying.

R. G. E.

Aconitine in Neuralgia.

Crystallized acontine, when properly used, is one of the most powerful remedies in certain kinds of neuralgia. It is most valuable in so-called "essential" neuralgia, especially facial and trigeminal neuralgia. It is best given in the

form of granules containing a quarter of a milligramme of crystallized aconitine, or crystallized nitrate of aconitine, the doses being the same. An interval of four hours should be allowed between the doses, the total quantity of the drug administered in the twenty-four hours not exceeding one milligramme. There are forms of obstinate facial neuralgia, however, such as the intermittent variety, which resist the action of aconitine alone, and these likewise prove refractory to quinine alone. In such cases, success may be achieved by combining the two drugs.

This may be done in pills as follows :

℞. Hydrobromate of quinine, 10 centigrammes; crystallized aconitine, ¼ milligramme.

One pill containing the above quantity of quinine and acontine to be taken every four or five hours.—*Med. and Surg. Reporter.*

DISEASES OF CIRCULATORY ORGANS.

The Direct Action of Atropine, Homatropine, Hyoscine, Hyoscyamine, and Daturine on the Heart of the Dog, Terrapin and Frog.

Dr. H. G. Byer, from an experimetal study of the action of these drugs, which appears in *The American Journal of the Medical Sciences*, reaches the folfowing conclusions :

1. Atropine, homatropine, hyoscine, hyoscyamine, and daturine are stimulants of the sympathic nerve apparatus of the heart.

2. The vasomotor portion of this nerve apparatus is affected by comparatively small doses of these drugs, giving rise to either acceleration or augmentation in the heart's action.

3. The inhibitory portion is excited by large doses only, giving rise to slowing of the heart's action, and, finally, causing diastolic arrest.

4. The muscular substance of the heart is greatly excited by atropine, homatropine,and daturine, and only slightly so by hyoscine and hyoscyamine.

5. The vasomotor nerves and their ganglia are the first to become exhausted, the inhibitory nerves and their ganglia are the next, and the muscular substance is exhausted last of all.

6. The slowing of the heart's action which follows the administration of these drugs in the intact animal, may be sufficiently accounted for by their influence on the inhibitory nerves and ganglia of the heart itself.

7. The acceleration following the administration of certain doses of these drugs cannot be sufficiently accounted for by their action on the accelerator nerves and ganglia within the heart, but is principally due to causes resident outside this organ.—*Maryland Med. Jour.*

Iodoform in Heart Disease.

M. Testa has employed iodoform in cases of organic lesion of the valves. The administration of small doses of iodoform (seven centigrammes—about a grain—in four pilules, one to be taken every two hours) rapidly dissipate the functional derangements dependent on the valvular disease. The experimental results obtained in dogs completely concur with those furnished by clinical experimentation in demonstrating that in dogs iodoform retards the cardiac contractions, and this delay increases the total duration of each cardiac cycle, and also the efficiency of the systole.—*Med. and Surg. Reporter.*

DIGESTIVE TRACT.

Carbolic Acid in the Treatment of Vomiting and Painful Dyspepsia.

The *Boston Medical and Surgical Journal* says that the well known anæsthetic and analgesic effects of car-

bolic acid were first utilized in the treatment of vomiting, by Dr. EDWARD GARROWAY, of England. He found doses of carbolic acid in some suitable vehicle to allay, as by magic, hysterical vomiting and the vomiting of pregnancy. Drs. Dixon and Beran afterwards employed the same remedy in the same dose for the relief of some forms of painful dyspepsia; the latter associated with it a certain proportion of the *acetum opii* (English black drops).

Recently Pacholier has essayed the combination recommended by Dr. Beran, in obstinate cases of chlorotic vomiting in the vomiting of pregnancy, in gastralgia from dilatation of the stomach, and from anæmic, nervous causes; and he reports remarkable success from this palliative treatment of these affections. His formula is as follows: ℞. Pure deliquescent carbolic acid, 1 part; English black drops, three parts. Mix. Dose—Four drops in a little sweetened water three times a day, a few minutes after meals.—*Medical and Surgical Reporter.*

Movable Spleen.

DR. M. A. LÜKEN, of Cronstadt, reports (Proceedings of the Cronstadt Marine Medical Society) an interesting case of extreme mobility of the spleen in an epileptic woman, who died at the age of 40. At the post-mortem examination, the spleen, measuring 15.5 by 7 by 3 centimetres, and enclosed in a smooth tense capsule, was found in the left iliac fossa. The hilus was connected with the centre of the greater curvature of the stomach by means of a band 9 centimetres in length and 6 in breadth, and the spleen could be easily and freely moved into every corner, however remote, of the pelvis and abdomen, without stretching the band. The splenic substance was of a dark red color, and presented numerous thin whitish strips of connective tissue. Dr. Lükin thinks that the epileptic fits of the patient might possibly have had something to do with the extreme mobility of her spleen. He says that this is the only case of the kind which he has met with in 8,152 necropsies made by him during the last fifteen years.—*Ibid.*

Red Drops and Dover's Solution.

In a communication to us, Dr. D. W. COLEMAN says:

It will appear from a formula that you have published for Dover's solution, that it and red drops are one. This I would like to correct, as it is not the case. Red drop, as known in Trenton, N. J., was also a preparation of Dr. James B. Coleman. The prescription is this: ℞. Sol. morphiæ et ipecac. (Dover's solution), f. ʒ ij; tinct. catechu, f. ʒ v; spts. camphoræ, f. ʒ i. Sig. Take a teaspoonful every fourth hour until relieved.

The advantage of a preparation like the sol. morphiæ and ipecac, is that it can be combined with the vegetable astringent without making a precipitate. It can also be combined with the spts. of camphor. Large quantities of red drop are sold here during the summer, as it is one of the most efficient prescriptions we have to control diarrhea. When used, it should be diluted with a small amount of water.

DISEASES OF RESPIRATORY ORGANS.

Treatment of Tonsilitis.

DR. CHARLES MCLEAN, in a recent issue of the *British Medical Journal*, makes the strange assertion that tonsilitis is little amenable to ordinary methods of treatment, and argues in favor of incising the affected gland or glands in all cases.

The value of that procedure will be freely admitted by all who have had recourse to it. The relief is marked and almost immediate. Timid persons and children, however, will shrink from the introduction of a bistoury or any sharp instrument into the mouth.

Fortunately, however, they can easily be relieved in another manner. For, notwithstanding Dr. McLean's assertion, there is no disease which yields so readily to appropriate treatment as tonsilitis. In many cases a cure can be effected at once by the administration of any prompt emetic. In others, five to ten grains of Dover's powder at bedtime will be promptly curative. In the severer grade of cases characterized by bounding pulse, high fever and intense headache, relief can invariably be had from the following combination in from twelve to twenty-four hours:—℞. Tinct. aconiti rad., ʒ ss ; tinct. guaiaci, ℥ ss; syr. zingiberi, ℥ ss; syr. simp, ℥ ij. M. Sig.—From a half to two teaspoonfuls every two hours, according to the age of the patient.

If the urine is scanty and high colored, an ounce of liquor potassi citratis may be substituted with advantage for the guaiac and ginger syrup.

In neglected cases, in which the physician is not called until suppuration is inevitable, the best treatment will usually consist in the administration of emetics and arterial sedatives, to be followed by free incision as soon as the locality of the pus formation can be perceived.

Free purgation is beneficial and essential in all the varieties of the disease. —*Practitioner and News.*

Soothing Mixture for Consumption.

Dr. J. B. Johnson (*Medical and Surgical Reporter*) : Of all the mixtures for stimulating the consumptive patient, allaying his cough and quieting his nervousness, I have found none equal to the following : ℞. Syrup licorice root, ℥ j ; aromatic syrup rhubarb, ℥ ss ; fluid extract of opium, ʒ j ; liquor ammon. acetat., ℥ v. M. Sig.—Shake well. Dose.—A tablespoonful every two or three hours.

Patients become very fond of this mixture, and it in nowise interferes with the stomach or appetite. Should constipation ensue, it is easily overcome by an occasional dose of comp. licor. powder.

Asthma Treated by Bergeon's Method.

At a recent meeting of the Philadelphia County Medical Society, Dr. S. Solis-Cohen said :

By request of the chairman of the directors, I will briefly report a case of asthma in which immediate relief followed the injection into the intestine of the mixture of carbon dioxide and hydrogen sulphide, as recommended by Bergeon. Having noticed in Morel's paper reports of two cases, in which success attended the experiment, in one of the Parisian hospitals, and a case presenting itself which offered a fair test, I determined to make the trial.

The patient is a stout married woman, about fifty years of age, of somewhat neurotic temperament, who has for some years been subject to attacks of spasmodic asthma, ordinarily manifesting recurrent paroxysms, lasting ten or twelve days. In the intervals there is neither bronchitis nor dyspnœa. There is no heart lesion. I have seen her in previous attacks, which have been relieved by methods with which we are all familiar. In one particularly obstinate seizure, by advice of Dr. J. Solis-Cohen, the patient was sent to the gas-works, and was benefited by inhaling the carburetted vapors there produced. I saw her on the second or third day of the attack, and proposed injections, but

could not obtain consent. Not wishing to complicate the therapeutics too much, in case she should later accede to the proposal, I simply prescribed, as a palliative for the dyspnœa under which she labored between the paroxysms, quebracho, in twenty-drop doses of the fluid extract, repeated hourly or half-hourly, according to indications. This, of course, gave great relief, but a paroxysm recurring in the evening, the patient consented to try the injection. Almost immediate relief was experienced. Some dyspnœa persisted, but there was no further paroxysm, and the dyspnœa gradually lessened, finally disappearing within thirty-six hours. After six injections, the latter ones being prophylactic rather than therapeutic, the patient professed herself feeling better than for years, and auscultation revealed only normal breath sounds.

This is, of course, but a single case; yet, having a standard of comparison in previous attacks in the same individual, I can, so far as one case is worth anything, confirm Morel's claim that the rectal injection of carbon dioxide and hydrogen sulphide is beneficial in asthma. Which of the two gases is the active agent, and whether it would be equally efficacious by inhalation, are questions which I do not now desire to discuss.

Pyridine in Asthma.

Dr. Dandien, of Paris, has confirmed the claim of Prof. Sée, as to the great value of inhalations of pyridine in asthma. He declares that it is not only palliative but curative. Pyridine is one of the constituents of tobacco smoke.

R. G. E.

Inherited Phthisis.

Professor Firket (*Revue de Médecine*), writing upon the subject of heredity in tubercolosis, points out certain difficulties in the acceptance of the doctrine of direct transmission from parent to offspring. Such transmission may conceivably take place before conception, the tubercular bacilli being associated with the sperm or germ—a purely hypothetical idea—or through the medium of the placenta, and therefore solely by the maternal blood. He contends that there is not such positive proof of infection of the maternal blood, and thereby of transmission of disease to the fetus in the case of tuberculosis, as there is in anthrax, or syphilis, or variola and other affections. Moreover he shows that in ordinary phthisis fully one-half of the cases do not exhibit, in the presence of remote secondary lesions, evidence of blood infection. It is for the most part a local disease of the lung, and such secondary lesions as do occur may be explained in many cases apart from general blood contamination. How different, it may be said, from the old notion of phthisis! But the fact of the lung being the primary seat of tubercular disease in inherited cases (says the *Lancet*) is almost conclusive against the congenital theory; for if the fetus were infected through the blood, the chances are that the lungs would not suffer more than any other organ.—*Medical and Surgical Reporter.*

Bronchitis.

The *Union Médicale du Canada* prints the following formula of Dr. Horatio C. Wood: ℞. Kalii citratis, 15 parts; lemon juice, 30 parts; syrupi ipecac, 15 parts; syrupi simpl., 90 parts. Mix. One teaspoonful for a dose every two hours.

Freshly prepared citrate of ammonia, the addition of small doses of ipecac wine, was a favorite bronchitic remedy of the late Sir P. Crampton.—*Ibid.*

CONSTITUTIONAL DISEASES.

Observations on Diphtheria.

DR. LIELL (*New York Medical Journal*) concludes:

Prophylactic or sanitary measures are a prominent feature of almost equal importance to the local and constitutional treatment. Isolation must be strictly enforced, and all unnecessary articles of clothing, furniture, and the like, should be removed from the room; the sputa of the patient should also be disinfected. It has but recently been stated, in a prominent medical journal, that "the inefficiency and harmfulness of all local treatment which looks to the removal of the diphtheritic membrane from without, is apparent when we consider that such therapeutic energy is expended upon the product of the disease instead of upon the disease process;" furthermore, that it is "just as irrational as to expect that the removal in this manner of the inflammatory product which is constantly welling up out of inflamed veins is curative." This reasoning by analogy, no doubt, is due to its being looked upon as a disease primarily constitutional in character; nevertheless, it seems to warrant the following question: Is it rational to use local measures to soften and detach the rapidly accumulating fibrinous membrane, especially where it clogs the larynx, and for that matter, the respiratory tract in general? Believing, as I do, the disease to be of local origin, I contend that the rationality of the procedure is beyond question, as borne out by daily experience; added to this is the fact of a notable reduction in temperature following the application of effective local measures.

Again, the writer quoted, standing almost alone in his convictions, takes exception, in this enlightened age, to the tonic-stimulant treatment of diphtheria, "feeling justified in stating that it is in a large measure injurious, and responsible for many fatal cases occurring." How he can reconcile his convictions with the every day fact before us of the more or less rapid failure of the vital powers in a large number of cases of diphtheria, as beyond my comprehension.

A great deal of time and space might be devoted to the consideration of many remedies lauded in the treatment of diphtheria, but I shall confine myself only to those which I deem, as shown by experience, to be of practical value and based upon rational therapeutics. Much depends upon ascertaining with precision the nature of the case, the state of the vital powers, and the disposition to certain complications. The employment of measures which depress the system is contra-indicated, and should be seriously deprecated. According to J. L. Smith, "early and repeated local treatment of the inflammation does not prevent the occurrence of symptoms of septicæmia in all cases of a severe type." This I have found to be a fact, as in the case above recorded, which happily, however, as stated, terminated in recovery. The constitutional treatment should, therefore, from the very first, be continued uninterruptedly, as also for some time after the local disease process has apparently disappeared, to guard, if possible, against any complicating paralyses later on.

The enforcement of absolute rest in bed from the very beginning of the affection until convalescence is fully established, is a great factor in aborting the disease and hastening the recovery of the patient. Where the disease appears insidiously mild in character, treatment is generally less active, the poison being eliminated slowly, and consequent complications and relapses are more frequent; nor can one always be guided by the temperature as to whether the

disease will subsequently be of a mild or virulent character, the temperature being at times but slightly raised when the disease takes on a most virulent form. Adynamia, or a disposition to cardiac syncope, may be regarded as characteristic of the disease itself, and the physician should always keep this fact in mind. Except in those of a scrofulous or syphilitic character, the free use of preparations of mercury, such as calomel and corrosive sublimate, but recently recommended, is of doubtful utility, and, to a great extent, dangerous even in sthenic cases, not alone as regards the danger of salivation, but chiefly because of the depression and debility produced; that calomel, however, given in minute doses, and repeated sufficiently often to act as a derivative and eliminant by its peristaltic action, is of undoubted utility, I freely admit.

In the early stages of the disease, a cleansing and disinfecting mixture, containing carbolic acid or thymol, chlorate of potassium, and glycerin, will be found of excellent service previous to the application of more direct and stronger local measures; the addition of lime water to this mixture increases its cleansing effect, its action as a solvent of the fibrinous membrane being very slight. When a marked fœtor of the breath exists, arising from a decomposition of the exudate, especially apparent when the latter is profuse, a mild solution of chlorinated soda may be used either as a spray, with a brush, or as a gargle. Heat applied in various ways is a very useful and one of our most reliable agents in diminishing the hyperæmia and subsequent exudation, and thus the tendency to the extension of the disease process. The beneficial influence of steam inhalations or spray, is explained by the fact that, as they come in immediate contact with the mucous passages, the exudation is softened, a condition increasing and favoring the chances for its easy removal. A solution of trypsin, recently prepared and slightly warmed to increase its activity, acts in a similar manner, with the additional fact of dissolving a portion of the fibrinous exudate; this can readily be seen by brushing the surface freely, or spraying it, every fifteen or twenty minutes, when portions of the membrane can be removed very readily by means of a brush or probang. Trypsin, by its rapid solvent action, and added to that its antiseptic properties, greatly checks decomposition of the membrane when applied freely, from the very commencement of the appearance of the exudate; the probability of subsequent toxæmia may be said, therefore, to be greatly lessened.

In the course of my use of trypsin my attention was drawn to the fact of a notable reduction of the temperature when the pyrexia was marked, no doubt due to its softening and solvent power upon the diphtheritic membrane and the removal of it in great part; my attention was drawn to this fact by the observations of Finkler and Rossbach, as also Jacobi, in the use of papayotin in diphtheria. The evidence of its utility and successful application in the cases occurring in the course of my practice, is sufficient to warrant its having a more extended trial, and I have but to congratulate myself on the results obtained. When it is properly and constantly used, intubation of the larynx or tracheotomy in laryngeal diphtheria will much less frequently be indicated or resorted to.

It is very possible and plausible that infection may be carried beyond the glottis by a too free use of solutions, especially by means of the brush, as has been suggested; I am not aware, how-

ever, of this having ever been proved to be the case. I am, however, well aware and not unmindful of the fact that no true estimate can be formed of the value of any particular method of treatment where its practice has been confined to a limited number of cases. In my dispensary practice a twenty per cent. solution of Monsel's solution of subsulphate of iron was applied with a brush directly to the false membrane, but I have certainly failed to meet with the success attained by the use of trypsin. This may, perhaps, be accounted for in great measure by a failure in carrying out strict directions—a failure accounted for, no doubt, through negligence or ignorance mostly.

Where the accumulation of mucus is great and expectoration difficult, especially in laryngeal diphtheria, occurring mostly in young children, an occasional emetic may be resorted to.

In many cases of the disease there is no direct process of repair, ulceration after detachment of the membrane not being present; in others, ulceration is slight and more or less superficial, with rapid restoration of tissue; still other cases are met with where the reparative process is very protracted, as in a case of mine where a relapse occurred, some twelve days elapsing before restoration of tissue to the normal. When convalescence is protracted and more or less marked ulceration exists, the application of a mild solution of nitrate of silver (gr. x to $\bar{3}$ j) greatly hastens the healing process. I have tried it in three such cases, obtaining good results in each.

Intubation of the Larynx.

Dr. Geo. McNaughton, in an article published in the *New York Medical Journal*, summarizes as follows:

All methods of treatment for laryngeal stenosis have their drawbacks, and this is no exception. I will mention them as they have occurred to me.

1. The difficulty of introducing the tube. I do not think any one should attempt the operation without previous practice on the cadaver. Without this practice failure is almost certain to result. By rare good luck the tube might be placed on the first trial, while the second and succeeding attempts would be failures.

2. The difficulty patients have in swallowing while the tube is in the larynx. But this is not an invariable difficulty. About ten days ago I placed a tube in the larynx of a patient who had no difficulty in swallowing everything offered, both liquid and solid. Dr. Read and Dr. Bartley witnessed this operation, and I should be pleased if they would favor the society with their impressions of the operation. In cases where the patient cannot swallow readily, I think an œsophageal tube could be used to advantage.

3. A liability of occlusion from detached pieces of membrane. But this is probably no more liable to occur in intubation than in tracheotomy. Nevertheless it is one of the objections.

Having enumerated the disadvantages, I will now speak of the advantages of the operation, and I hope the balance will lie in favor of intubation.

1. It is not difficult to obtain permission of the friends or relatives of the patient as soon as they understand that no cutting is to be done. This consent is difficult as regards tracheotomy, as neither the physician nor the people put much faith in the success of the latter operation.

2. The rapidity with which the operation may be performed, the time occupied by one skilled in the operation being but a few seconds.

3. A trained nurse is not necessary, as the tubes will take care of themselves.

4. It is much safer for the physician and attendants.

5. The air enters by the proper channel, is warmed thereby, and is less liable to irritate the mucous membrane below.

6. The patient can whisper and so make his wants known.

7. One of the greatest advantages of intubation over tracheotomy is that it allows of a cough of far more expulsive power, thereby getting rid of bronchial secretions.

It is to be remembered that intubation does not preclude tracheotomy, but I think that it should always be tried before tracheotomy is resorted to.

Poisoning by Sorrel.

An extremely curious case of poisoning is reported from Birmingham. A few days since, a boy, 5 years of age, ate a quantity of sorrel-leaves, which he gathered at the back of his father's house. During the following night he appears to have complained of giddiness and intense thirst, and to assuage the latter he got out of bed and drank some soapy water which happened to be in a jug on the dressing-table. Shortly afterwards he became unconscious, and died. The medical evidence attributed death to oxalic acid poisoning, resulting from the action of the soap on the green sorrel. This wild plant, which is well known to contain a noticeable quantity of the oxalates, is a favorite with country children, from its pleasant acidulous taste, but it is quite new to find it capable of toxic effects. The theory put forward is certainly ingenious, and, if correct, it does credit to the acumen of the medical witness. None of the works on medical jurisprudence records any deaths from the ingestion of the raw plant, and abroad the cultivated plant is an important and largely-consumed article of food, without producing any untoward symptoms. It is credited with certain aphrodisiac properties, which, when manifested, are probably due to the irritation of the genito-urinary tract produced by undue acidity of the urine.

It would be interesting to have the details of the case, so one might know on what grounds death was ascribed to the effect of oxalic acid poisoning. Perhaps some of our readers may be enabled to furnish details of similar cases, with some explanation of the alleged action of an alkali in separating the oxalic acid in such a way and to such an extent as to lead to a fatal result. There are plenty of plants capable of causing death which seem to attract children's attention, and it is difficult to avoid a suspicion that the sorrel may not have been alone in producing the symptoms referred to. Of course, from a legal point of view, the exact cause of death is tolerably indifferent, but it is quite otherwise from a medical stand-point, since treatment would naturally require to be adapted to the toxic agent found in the stomach of the juvenile prowler. —*Medical Press.—Therapeutic Gazette.*

The Use of Hydrobromic Acid as a Remedial Agent.

Dr. J. M. Anders, in an article published in *Medical and Surgical Reporter*, concludes :

1. Hydrobromic acid should be employed as an alternate substitute for the bromides in the treatment of diseases in which their effects have been shown to be parallel.

2. It should probably supersede the alkaline bromides in neurasthenia and post-hemiplegic disturbances of a convulsive character ; also (as an arterial sedative) in congestions of the pelvic viscera.

3. Except when given in colossal doses—a method not practicable in pri-

vate practice—it appears to be less efficacious than the bromides of sodium and potassium in epilepsy.

4. Owing to the fact that its action is more evanescent than that of the bromides, it should be administered at intervals of not more than four hours.

Physiological Action and Therapeutical Uses of Methylal.

For some time past, says the Paris correspondent of the *British Medical Journal*, therapeutists have sought for a new hypnotic among acetals. Methylal, which belongs to that group, was first classed by M. Malaguti, in 1839. It is highly volatile, boils at 42° C. (107.6° F.), has a density of about 0.85, and is soluble in water, alcohol and oil. M. Personali's experiments proved that methylal rapidly induced sleep in frogs after a dose equal to 50 per cent. of their own weight; in rabbits after a dose of 25 per cent. of their weight; in birds after a dose of 20 per cent.; and in dogs after a dose of 10 to 16 per cent. A dose of a gramme and a half caused death in a pigeon. Methylal is rapidly eliminated. It modifies the action of the heart, and increases the number of its beats during hypnosis. It lessens arterial pressure, and at the same time lowers the temperature; it reduces the activity of exchange in the tissues, while it modifies the circulation and respiration. If methylal be administered to a warm-blooded animal at the beginning of strychnine poisoning, the tetanic convulsions are checked, and, the poison being eliminated, the animal may recover. In the case of cold-blooded animals, in which the process of elimination takes a considerable time, the toxic phenomena are suspended while the action of the methylal lasts, and reappear when it has ceased. Methylal may be administered without difficulty either hypodermically or by the mouth. M. Nicot proposed to administer it externally, prepared with oil of sweet almonds, in the form of a liniment composed of 85 grammes of the excipient to 15 grammes of methylal: or with alcohol at 80, in the proportion of 10 grammes of methylal to 110 grammes of alcohol and 5 grammes of essence of lavender. An ointment might be made with methylal, containing 33 grammes of fatty material and 5 grammes of the medicament; and an application for toothache might be made with 2 grammes of methylal in a suitable excipient. A draught might be made of 1 gramme of methylal mixed with 150 grammes of water and currant syrup; a syrup with $1\frac{1}{2}$ grammes of methylal to 100 grammes of golden syrup; and an injection with 1 gramme of methylal in 125 grammes of gum-water.

Indications for the Use of Nitro-Glycerine.

Dr. Trussewitsch, in an instructive paper on the use of nitro-glycerine, published in the *St. Petersburger Medicinische Wochenschrift*, points out that the value of this drug in various affections—angina pectoris, migraine, and neuralgia (which he describes as angioneuroses), as also in sea-sickness, some forms of anæmia, faintness, palpitation, and other diseases—depends upon the existence of an irregular distribution of blood, which condition may be inferred from a certain degree of pallor of the skin, especially of the face, often coexistent with a weak pulse and a small rigid radial artery, which frequently is situated at some depth. When, on the other hand, headache and neuralgia occur in patients with chronic congestion of the subcutaneous veins of the face, nitro-glycerine is to be avoided; and similarly it is of no use in asthma, when the face is reddened in consequence of

emphysema. If, however, a pale face exists with angina pectoris, migraine, giddiness, shock, toothache, or sea-sickness, the best results may be looked for by giving nitro-glycerine. The regulating effect of the drug exercises an influence over the congestion of internal organs similar to that brought about by blood-letting; and in these congestions, whether of lung, brain or kidney, when they are of temporary character, the pulse is generally found to be slow and of low tension—a fact which, as the author remarks, is sufficiently well known in reference to the fever-free periods of acute hyperæmia of the lung and kidney. Dr. Trussewitsch lays down, as a rule, that the condition of the pulse is the best indication for the employment of nitro-glycerine, and the most trustworthy guide as to the dose with which to commence the treatment. The smaller the radial artery is, the more rapidly it dilates under the action of the drug, and the less the secondary effects proceed; on the other hand, the fuller the pulse with a distended radial artery, the less it is affected; and finally, the softer the artery, with a weak pulse, the greater the secondary, and the less the general effects. Single-drop doses of the 1 per cent. solution are sufficient in cases of small pulse, but with a full pulse it will be found that the full effects cannot be produced with less than 2-drop doses. When there is a soft artery with a weak pulse, subnormal doses only should be given—a quarter to half a drop. After the trial dose is given, the patient's sensations of pulsation and pain in the head, as well as the distension of the radial artery under the finger of the physician, will be the guides for increasing the dose. The author finds that the best modes of administering nitro-glycerine are the simple dropping of the solution on the tongue, and by means of tablets; much less satisfactory results were obtained when given mixed with water.—*Lancet.*

The Remedies I Use in Practice.

Dr. P. H. Carson (*Kansas City Medical Index*):

For Bronchitis.—There is no combination from which I derive so much satisfaction in the treatment of ordinary "colds" as ℞. Ammonii chloridi, ʒ j; tinct. opii camphoratæ, f ℥ ss; syrupi scillæ comp., f ℥ jss. M. Sig. Teaspoonful every two or three hours, as the cough may require. If there be some fever, I add a suitable quantity of tincture of aconite.

For Pharyngitis.—As a "gargle," I derive most benefit, in acute inflammation of the pharynx, from: ℞. Potassii chloratis, ʒ j; aquæ destillat., f ℥ iij; ft. solut. et adde: tinct. ferri chloridi, f ʒ ij. M. Sig. Use as a gargle four or five times daily. Sometimes, if the inflammation be severe and accompanied by constitutional disturbances, I prescribe internally tincture of phytolacca decandra, with the happiest results.

For Lumbago.—For the relief of lumbago, I order a belladonna plaster over the neuralgic parts, and internally a mixture of: ℞. Extracti cimicifugæ, f ʒ iij; codeinæ sulphatis, gr. x; syrupi acaciæ, f ℥ ss.; aquæ, q. s. ut fit, f ℥ iij. M. Sig. One teaspoonful every three hours until relieved. When the pain is not severe it is best to leave the sulphate of codeine cut of the prescription.

For Burns.—There is nothing so beneficial for recent burns as carron oil: ℞. Olei lini sem., aquæ calcis, āā f ℥ ij. M. Sig. Apply to burned surface. Afterwards, if there be much suppuration, sub-iodide of bismuth may be dusted over the parts, making just a very thin film; if this produces much irritation, the sub-nitrate in conjunction

with some mercurial in vaseline may be used. Iodoform is worse than useless.

For Conjunctivitis.—In cases of conjunctivitis, I have long since discarded any irritating application. Nitrate of silver, sulphate of zinc, acetate of lead, only add fuel to the fire. I write for: ℞. Hydrargyri oxidi flavi, gr. ss; unguent. petrolei, ℥ ss. M. et ft. unguentum exactum. Sig. Apply two or three times a day until relieved.

For Anæmia.—As a tonic in anæmia there is nothing equal to some preparation of iron. The most eligible mixture containing iron is one which I have used for a long time without a single complaint of nausea or other gastric disturbance, consisting of: ℞. Ferri citratis (*solubl.*) ʒ jss; aquæ destillat., f ʒ jj; fiat. solut. et adde: acidi sulphurici aromatic, f ʒ iij; glycerinæ, syrupi simplicis, āā f ℥ j. M. Sig. One teaspoonful one hour after each meal. When the iron is given immediately after meals it unites with the tannic acid of the tea or other articles of diet, forming an insoluble tannate of iron—a pure ink, but not very valuable therapeutically.

For Delirium Tremens.—In quieting the delirium of acute alcoholism, I sometimes use chloral hydrate or the bromides, but more often rely upon: ℞. Extracti lupulinæ fluidi, extracti hyoscyami, āā f ℥ ss. M. Sig. One teaspoonful every two or three hours until delirium subsides. Monobromide of camphor acts well to control the persistent insomnia in certain instances.

For Diarrhœa.—In controlling obstinate cases of diarrhœa there is nothing more efficacious in my hands than the old prescription: ℞. Pulv. opii, camphoræ, plumbi acetatis, āā gr. x. M. et dispens, in capsul. No. x. Sig. One capsule every two hours until the diarrhœa ceases. In some cases large doses of tannic acid may be used or bismuth subnitrate in combination with one or more of these three drugs; but when other remedies have failed this prescription will be found to check the discharges, particularly if there be blood in the fæces.

For Vomiting of Pregnancy.—For this often intractable trouble I generally give: ℞. Acidi carbolici, gtt. ij; bismuthi subnitratis, ʒ j; aquæ menth. pip., f ℥ ij. M. Sig. One teaspoonful as often as necessary to check vomiting. If one dose be ejected, wait a few moments until the nausea subsides and then repeat. Certain cases do well on iced champagne, while others persist until dilatation of the cervix is performed.

For Sleeplessness.—When opium is contra-indicated, and there is persistent insomnia, my choice usually is: ℞. Ammonii bromidi ʒ iij; aquæ q. s. ut ft. sol.: tincturæ hyoscyami, q. s. ad f ℥ ij M. Sig. One teaspoonful every hour or two until sleep is produced.

For Fetid Sweating.—For the fetid secretion of the axilla or of the feet, a solution of salicylic acid is excellent, or this may be used: ℞. Potassii permanganatis, ʒ j; aquæ, Oj. M. Sig. Apply to the parts night and morning.

The Nutritive Value of Beef Tea.

In the *Therapeutic Gazette*, Dr. Fothergill says; Beef tea contains nothing which can form grape-sugar, and is, in fact, a pleasant stimulating beverage or food adjunct, but without food value practically. (For what food value it has is so infinitesimal that it is not worth counting.) But when it has added to it a food such as lactated food, it has a distinct measureable food value. Consequently, such food should be given with beef tea, and the compound forms a valuable food.

When lactated food is placed in water hot enough to be sipped, a rapid trans-

formation of the starch remaining in it (by the diastase it contains) goes on; and a nutritive fluid is the result, which requires but a minimum of the digestive act. Such fluid can be flavored and drank as a nutritive beverage, specially acceptable in febrile conditions. Flavored with lemon, ginger, cloves, or other flavoring agents, to give variety—a matter far too much neglected in the treatment of the sick—it can be largely used. Or wine, either red wine, as claret, or sherry or port, can be added to it when a little stimulant is required, and brandy when a stronger stimulant is indicated.—*Maryland Medical Journal.*

New Treatment of the Morphia Habit.

In *L'Encephale*, JENNINGS gives his experience with a new plan of treatment of morphiomania. The amount of the narcotic is gradually reduced, and in the period of inquietude and distress various forms of dynamic stimulation are employed, such as faradization, massage, dry friction, mechanical vibration by Granville's percuteur; sounds as music; and heat by warm bath. By these means the insupportable craving is allayed, and the dose can be progressively diminished. The only medicines employed are bicarbonate of sodium, preparations of valerian and nitro-glycerine, which produce a glow and pleasant sensation, not unlike that of morphia. The essential features of this method have been employed with success by Weir Mitchell, who has found seclusion, careful nursing, massage, and electricity most valuable adjuncts in the treatment of this distressing and obstinate condition.—*Medical News.*

Treatment of Grave Epistaxis.

M. VERNEUIL read a communication at the Academy of Medicine on the treatment of certain forms of epistaxis by counter-irritation over the region of the liver. M. Verneuil began by stating that he had at first thought that the method was entirely his own, but from biographical research it turned out that he had been anticipated to a certain extent by Galen, who says that large cupping glasses applied to the hypochondria arrest nasal hemorrhage. In the first case related by M. Verneuil the epistaxis was probably symptomatic of cirrhosis of the liver. Quinine, ergotine, and digitalis had all been tried in vain. The hemorrhage continued to recur at intervals. The second patient had suffered from nasal hemorrhage which seemed to have been caused by the shock of a kick from a horse. In this case plugging had failed. The third was the subject of chronic nephritis, with secondary affections of the heart and liver, and the cavity of the nose had been plugged without effect, both with ergotine and perchloride of iron. M. Verneuil's treatment, which was immediately and permanently efficacious, consisted of the application over the region of the liver of a large blister.—*London Lancet.*

Chloride of Gold and Sodium.

It may be well to know that when the chloride of gold and sodium cannot be obtained from the usual sources, it may be procured from photographers, who use it in finishing processes for certain portions of their work. Prof. Bartholow continues to advocate and claim for this remedy the efficacy of its use in the various scleroses. Especially is he positive as to its benefit in insterstitial nephritis after the acute symptoms have subsided.—*Med. and Surg. Reporter.*

On Lavage of the Stomach in Peritonitis.

Encouraged by Senator's employment of this method in peritonitis with excessive meteorism, LEWIN has used it

in two instances with excellent results. (*Berliner klin. Wochensch.*) Both were cases of acute peritonitis following operation for strangulated hernia. Lavage was performed three times daily and followed by the administration of opium. Immediate relief was obtained, pain and eructation were lessened, and sleep procured. Opium had been employed without effect. The washing removed the continually accumulating grass-green masses, and reduced the meteorism.—*American Journal of Med. Sciences.*

The Treatment of Erysipelas.

DR. ROBERT POLLOK writes as follows in the *Glasgow Medical Journal:*

I am of opinion that the treatment must depend on the type of the disease.

In all the cases I have seen, the treatment demanded was a stimulating one. I refer to simple general erysipelas. But in localized erysipelas affecting the throat, ear and pharynx, aconite in small doses, frequently repeated, as recommended by Ringer, has been productive of the happiest effects when administered at the beginning of the attack. I will take as a typical example of simple cutaneous erysipelas that fr om which we so commonly see, commencing over the root of the nose, and spreading over the face and forehead, In such cases, I immediately begin the administration of 20 to 30 minims of tinct. ferri mur. (diluted of course with water) every two hours; and as a protective and palliative, I used the following preparations: ℞ Gutta percha, ʒ ij, chlorof. meth., f. ʒ ij solve; zinc. oleati, ʒ ij; iodoformi, ʒ ss. M. Sig.—To be painted over the part affected.

The advantages of this preparation over the powdered starch, zinc, or flour, is its comeliness. Of course, previously to applying this preparation, I have the parts carefully washed with tepid water, and often when there is much pain I use the decoction of poppy heads as a fomentation. This treatment usually effects an amelioration of the symptoms, and the disease subsides. But in some cases the course of the disease does not stop here, it runs riot all over the head and neck, and the medicinal treatment then pursued is ammonia, bark, iron and quinine, with perhaps a grain of solid opium to obtain rest. I am happy to state that I have never lost a case of erysipelas, although the duration and severity of the complaint have varied much.

The *rationale* of the local application above mentioned must be purely protective and palliative, by excluding the irritating effects of the cold air, and not by excluding specific germs. The latest researches prove that the schizomycetes or streptococcus erysipelatosus is anærobic, or flourishes where air is excluded, living in and upon the tissues affected.

Xylol in Small-Pox.

OTVOES has used xylol in 315 cases of small-pox with excellent results. This substance is recommended by Zuelza as an antiseptic; it coagulates albumen. Otvoes administered it in wine, in doses of 2 to 3 grammes a day. The total amount given was sometimes 24 grammes. Otvoes gives the following formula for the administration of xylol: ℞. Pure xylol, 3 grammes; menthol water, distilled water, āā 50 grammes; cinnamon syrup, 10 grammes. A spoonful every two hours.—*Brit. Med. Jour.*

DISEASES OF THE NERVOUS SYSTEM.

Nerve-Stretching.

An outline is given (*Boston Med. and Surg. Journal*) of DR. F. LAGRANGE'S conclusions on this subject:

1. The action of nerve stretching as a therapeutic measure differs in kind

from that of other operations on nerves (neurotomy, neurectomy and compression). Its influence makes itself felt even in the nervous centres, especially the spinal cord, and it is to this that it owes its power of modifying sensory functions of nerves, without materially affecting their motor functions.

2. This action of nerve stretching on the nervous centres may give rise to hemorrhages and inflammatory changes both acute and chronic, and often very severe.

3. The operation is therefore to be regarded as an agent of greater therapeutic power than the other operations on nerves, and also as much more dangerous, and it should not therefore be lightly resorted to.

4. In general terms it is only suited for mixed nerves, section or resection being preferable for sensitive nerves. The statement is, however, in need of certain qualifications.

5. Thus, in the treatment of neuralgias of the ophthalmic division of the trigeminal nerve the result of resection and stretching are about equal so far as the front and nasal branches are concerned. In cases of the nasal, in fact, the operation of stretching or, better, of complete evulsion, is preferred, as being relatively harmless, easy of performance, and in some respects more effective. This measure has proved of some benefit in chronic glaucoma, and of still more benefit in acute glaucoma.

6. The operation of resection is preferable for the infra-orbital neuralgias and may, in case of need, extend so for back as to take in Meckel's ganglion. Resection is also the best operation for the dental nerves.

7. Stretching of mixed nerves is justifiable in obstinate cases of neuralgia, but the less dangerous method (applicable only to sciatica) is that on which the stretching is accomplished by forced positions of the limb, As a means of treatment of locomotor ataxia and the different diseases of the spinal cord, nerve-stretching is of so little value as to be unjustifiable.

8. Tetanus can be traced with equal success and more safety by neurotomy or compression of the nerves than by stretching, and (9) the same is true of torticollis.

10. Stretching is of some value in contractures and spasms of traumatic origin, and in reflex epilepsy.

11. Lepra anæsthetica is not benefited by nerve-stretching except as regards the pain, and even this effect is not to be counted on ; neither can atrophy of the optic nerve be helped this way.—*American Lancet.*

Cold in the Treatment of Neuralgia.

Early in April of the present year, M. DEBOVE reported to the Société Médicale des Hôpiteaux, no less than one hundred and sixty-eight cases treated in this manner, of which one hundred and fifty were cases of neuralgia of the sciatic nerve. His results are even startling in their success, and if further experiments show that they are to be relied upon, a remedial measure of great value in such cases is given to the profession, for only in ten cases did relief fail to appear, while in the treatment of eighteen cases of facial neuralgia, but two were unsuccessful, notwithstanding the fact that several of them had heretofore proved most intractable. Thus he mentions the case of a woman who had suffered for years with neuralgia of the face, and who had submitted to section of the nerves no less than three times, in whom these cold applications cured in two months.

M. Debove, after stating that he had used the chloride of methyl in the form

of a spray, for the purpose of lowering the temperature of the area involved, proceeds to warn us against the discoloration of the skin which sometimes follows its use, and insists that the surface and not the deep parts should be treated. It seems probable that the cold must act in quite a different manner in the case of neuralgia of the sciatic or any of the facial nerves, since in the one case the nerve fiber is much more deeply buried than in the other, so that while the facial nerves are directly acted on by the cold, the sciatic is only affected by the increase or decrease of blood and warmth in its immediate neighborhood.

A Point in the Treatment of Chorea.

DR. FLOOD, of Minnesota, says that he has almost constantly found tenderness on pressure over the fifth cervical vertebra in choreic cases. In these he applies the ether spray over the tender spot, and follows that with a mild counter-irritant. Then, with a judicious use of tonics and ergot he has generally been successful in the treatment.—*Chicago Medical Times.*

Remedy for Sleeplessness.

The *Scientific American*, referring to an article which recently appeared in an English medical journal, observes that the popular view that noise disturbs sleep, like most popular views, only touches the truth, but does not grasp it. The true cause of disturbance is interruption. Any sudden cessation of the continuity of silence or of sound awakens the sleeper, for sound, provided it is monotonous, has precisely the same effect on the brain as silence. The alarm-clock is based on the theory of interrupting silence. Why might not, therefore, a simple mechanism be devised to act on the same principle, but with the reverse object—to wit, that of insuring sleep by sound? Let such an instrument produce the monotonous buzz of the humming top, not so loud as to be heard in an adjoining room, but loud enough to drown distinct noises when placed close to the bedside or hung over the pillow.

[In so far as the perpetuation of sleep is concerned, a device of this kind might serve an excellent purpose. The ancient expedient of placing a pendulum clock in the room of a light sleeper, served, although in an imperfect manner, to attain a similar end. The primary motive to physiological sleep, we believe, however, must always consist in an exhaustion of the cerebral centres, and particularly of the protoplasm of the cortical cells. The cerebral anæmia and suspension of conscious perception are clearly to be looked upon as secondary to this exhaustion. While, therefore, such an instrument as that above described might have an influence in perpetuating unconsciousness, it could have little effect in the primary induction of sleep.] *N. Y. Medical Journal.*

Descending Degeneration of the Brain and Cord.

BIANCHI and D'ABUNDO (*Neurologisches Centralblatt*) have made an interesting series of experiments with a view to ascertaining the course followed by the degenerated fasciculi after removal of various zones of the cortical substance. Thus, after removal of the gyrus sigmoides, permanent changes (paresis, contracture) of the limbs of the opposite side, were observed, as well as protracted derangements of sight (hemiopia lateralis homonyma). On the other hand, no disturbances of cutaneous sensibility were noted. Again, the intellectual life of the animals (dogs) remains apparently unimpaired; they retain their instincts as before, exhibiting vivacity,

acuteness, and affection. Nutrition remains in an excellent state of efficiency; the animals increase in full measure, but their offspring are epileptic.—*New York Medical Journal.*

DISEASES OF CIRCULATORY ORGANS.

Treatment of Dropsies Due to Diseases of the Heart.

Under this head, Prof. DUJARDIN-BEAUMETZ, in speaking of digitalis and convallaria, said (*Medical and Surgical Reporter*):

Digitalis.—I showed you in the foregoing lecture the good effects of this tonic of the heart, and I can only add to what I then said by setting forth its no less great utility as a diuretic agent.

It is here that the infusion of digitalis gives the best results. Suppose, for instance, that you have to treat one of those bad cases of heart disease in which the face is puffed, the limbs swollen, with general œdema and dropsy; the patient is suffering from dyspnœa and labors so for breath that you fear asphyxia is imminent; give this patient the infusion of digitalis, and you will witness a marvellous restoration—diuresis will become more abundant, and in a few days' time the anasarca and the effusion in the serous cavities will have disappeared. You can hardly expect to witness such effects from digitaline, which, as before said, is uncertain as a diuretic.

To prepare the infusion, you will follow the rules laid down in the last lecture. As for the mode of administration, this differs according to different authorities. Some give progressively increasing doses; others continue the dose with which they began; others give the infusion in decreasing doses. The first method is a bad one; the cumulative effects of the medicine tend very rapidly to intolerance. The method of stationary doses enables one, it is true, to prolong the administration of the medicine, but it will be necessary to give very moderate doses, not more, in fact, than thirty centigrammes (gr. v.) a day of the powdered leaves; this is Herard's plan. The method of decreasing doses is an excellent way; you thus obtain an immediate effect, sufficiently powerful, without intolerance. Then come

Convallaria and Caffeine.—If you employ the first, you may give the extract in the dose of from 1 to 2 grammes (15-20 grs.) a day. When you prescribe caffeine, do not forget to order large doses, and do not scruple to give from 1 to 2 grammes (15-20 grs.) a day; and if administration by mouth is impossible, practice the subcutaneous injections of benzoate of caffeine and of soda. When you give caffeine by the mouth, you can make use of the pure caffeine, as Huchard does, or the bromhydrate or citrate of caffeine, according to Gubler's recommendation; or, better still, of the solution of caffeine and benzoate of soda, according to the formula which I gave you in the last lecture: ℞. Benzoate of soda; citrate of caffeine, āā ʒiv; water, f. ℥ ij, M. Sig.—A teaspoonful t. i. d.

In the case of children, you can follow the custom of Jules Simon, and combine squills with digitalis. My colleague of the Hôpital des Enfants, often makes use of the tincture of squills, which he gives in the dose of 5 to 10 drops every three hours.

By the side of digitalis and its infusion I would place milk as one of the best diuretics. The value of a milk diet in the treatment of dropsies has long been recognized. Christian, of Montpellier, Serres, of Alais, Guinier, and especially Pechollier, of Montpellier, have shown the advantages of the free administra-

tion of milk in cardiac affections, and more recently Potassi has confirmed the conclusions of these clinical observers. I need not here dwell upon the rules for the administration of this dietetic remedy, which consists in allowing only milk at stated periods, and foods prepared with milk. I shall give more complete directions on this point when I come to speak of affections of the stomach and of the kidneys. The milk should not be boiled, and its diuretic properties are enhanced by the addition of alkaline waters, such as Vichy, in the dose of a tumblerful to the quart. Milk has here a double therapeutic action; it is not only diuretic, but it tends to combat one of the most constant phenomena pertaining to the congestion of the kidney, the albuminuria.

DIGESTIVE TRACT.

Acute Intestinal Obstruction.

PROF. MADELUNG of Rostock, speaking on acute intestinal obstruction, insists upon washing out the stomach before giving anæsthetics. Prof. Kussmaul has shown that this will sometimes induce peristaltic action strong enough to overcome the obstruction. Then the incision should be made over the tumor, if such is discernable by palpation. If not, the *linea alba* should be incised. In cases where the patient is collapsed, an artificial anus is to be made, and the radical operation is to be deferred till the patient is in better condition. The incision should be long enough to allow sufficient inspection; but in no case should the intestines be drawn out to find the obstruction, because reposition is often next to impossible. Madelung always draws out a small coil of intestine, around which he puts two ligatures; then the patient is turned on his side, and the intestine is cut open and emptied of its contents, while the ligatures are slowly tightened. The incision being completely united again, the gut is returned into the abdominal cavity, and then there will be a much better chance to locate the exact seat of the difficulty. Now the surgeon has to decide whether an artificial anus is to be established or resection can be performed immediately. Peritonitis ought not to be considered a contra-indication. Still laparotomy in such cases will always be successful in a minority of cases only.

Dr. Rydygier (of Kulm) thinks that the operation should be performed as early as possible and that washing out the stomach should not be undertaken, since it tends to deceive patient and surgeon by temporary improvement, while inflammation continues. The difficulty most frequently is that the seat of the obstruction cannot be exactly located, and therefore laparotomy is deferred too long and is unjustly blamed for the fatal issue, if the patient dies. Rydygier has operated seven times and saved two patients. He thinks Czerny is too cautious in demanding that laparotomy should only be performed if the patient is in good condition, if the abdomen is not distended, and if the probable seat of the obstruction can be made out under chloroform. Czerny prefers enterostomy, but Rydygier contends that bands and adhesions generally, will continue to exert pressure in many cases and cause death by inflammation in spite of the evacuations of feces through the artificial anus. The same is true of volvulus and fecal accumulation. The difficulty of replacing the portions of the gut drawn out is sometimes great enough to cause the operator to shrink from performing laparotomy. Still he has been able to replace the intestine in all his cases. He prefers to make his incision in the *linea alba*. The forma-

tion of an artificial anus is indicated only in patients who are already collapsed, and it is doubtful if it will save them then and there. Rydygier therefore implores the practicing physicians to send for the surgeon early, and not lose valuable time with the stomach-pump.

Prof. Credé (of Leipsic) speaks strongly in favor of operating early, although he appreciates the difficulty to induce patients (and physicians) to call in the surgeon at once. His experience in 30 cases of laparotomy for intestinal obstruction, has led him to believe that it is mostly due to former disease, old adhesions with peritonitis following, or retention of a rupture in which adhesions have been existing for some time, etc. He therefore is anxious to operate when the colicky pains are at their height, and reports three cases in which he was fortunate enough to operate just at that point of time.

In one case the cause of the obstruction was found to be an old hernial sac which had not protruded for ten years when patient had had typhoid fever. The woman frequently had attacks of colic for many hours, but got well spontaneously until the last time. In the hernia the omentum was found to be coiled up in a lump, together with a portion of intestine: besides this, four coils of intestine were matted together by thick adhesive strings (Schwarten) so that it was extremely difficult to disengage them. After operating there remained two fistulæ, which closed afterwards; now the patient is entirely well and able to do hard (farmers') work. The other two cases were similarly due to old peritonitic adhesions. Both got well.

Credé states that such conditions of recurrent attacks of colic are more frequent than is generally supposed. Physicians should be aware of this, and advise an early operation; because these are the cases which collapse very quickly when an impassible obstruction is once formed.

Dr. Schede (of Hamburg) believes the main difficulty to be to make a correct diagnosis. He contends that by washing out the stomach, or even by rest and opium alone, at least 50 per cent. of all the cases get well. He remembers cases where on the twentieth and even on the thirty-fifth day spontaneous cure took place. Therefore early interference should be restricted to those rapid cases in which collapse begins after a few hours, and then laparotomy is not always advisable. An artificial anus may suffice to tide the patient over the worst stage. Schede has saved only 7 out of 26 cases operated upon, and these were operated upon very early. No cases were due to carcinoma, and he believes this to be often a cause of intestinal obstruction.—*Med. and Surg. Reporter.*

DISEASES OF RESPIRATORY ORGANS.

Treatment of Laryngitis in Professionals who are Unable to Rest.

Dr. J. Solis-Cohen, of Philadelphia, opened the discussion on "The Treatment of Laryngitis in Professionals who are unable to rest." Sometimes a professional had consulted him with hoarseness, the result of laryngitis, and want to use his voice in a few hours. The best method to accomplish this that he had found, has been the administration of a sharp emetic and then let the patient rest until the time of the performance, sucking pieces of ice and keeping a cold compress to the neck. In chronic laryngitis he had found nothing of the same service as the use of a weak solution of sulphate of zinc, two grains to the ounce, used in a spray apparatus. In the intervals of the play the patient may inhale a little compound tincture

of benzoin, if he finds that he is hoarse. Another remedy of considerable service is the use of a respiratory with turpentine, terebene, or eucalyptol, or something of that kind.

Dr. T. A. DeBlois, of Boston, had endeavored to keep up the systematic use of sulphate of zinc, but had found that the hoarseness continues unless the voice is rested. He had occasionally had to treat vocalists who could spare a few hours, and have found excellent results from the use of nitrate of silver, and the most disastrous results from the use of cocaine. There seems to be a certain amount of relaxation following the use of muriate of cocaine. It may be said that in these cases that unless there is rest there is no cure.

Dr. Beverly Robinson, of New York, stated that his experience with the class of cases under discussion, would lead him to believe that so far as the acute cases are concerned there are milder measures than the use of an emetic. He had found, under these circumstances, that the use of tablet triturates of chloride of ammonium, repeated as often as once every fifteen minutes, is one of the most efficient methods of overcoming the difficulty. For local application, he did not think there is anything better than carbolized spray. In the chronic form of laryngitis in vocalists, he believed that we could not obtain much information from the appearance of the mucous membrane. In these cases the membranes may be red, and this may continue after the trouble with the voice has disappeared. He believed that there the trouble is chiefly in the nervo-muscular apparatus, and had found the internal use of good wine of coca, with application of a faradaic current to the neck, very useful. The faradism should be repeated once or twice a day.

Dr. F. H. Bosworth held that there is no such disease as laryngitis, as that term is used to mean an inflammatory process. The seat of the disease is not in the larynx but in the nasal passages. If you apply cocaine to the nasal mucous membrane, causing contraction of the blood vessels, and follow this by the use of chromic acid, thus eliminating the cold in the head, it will usually be found that the laryngitis has disappeared. Relaxation has been spoken of as following the application of cocaine. Although he had used the drug in many cases he had seen this result in only two, and they were cases of hay fever. His method of using cocaine is to suspend it in fluid cosmoline and to spray the nose and inhale it.

Dr. C. E. Sajous, of Philadelphia, had treated many cases of this trouble. The action of cocaine in laryngitis is pernicious. In cold in the head cocaine is useful, but it should not be used within four hours of the time when it is desired to use the voice. In the majority of cases of chronic laryngitis the condition is due largely to fatigue. He had found that the use of quinine and nux vomica internally, with the external use of a weak faradaic current are the best measures to employ.

Dr. J. N. Mackenzie thought that Dr. Bosworth is to a great extent right with reference to the dependence of laryngeal disease on nasal trouble, and that the vast majority of cases of laryngitis are associated with disease of the nasal passages, and upon the recognition of this fact depends the successful treatment of many cases of chronic laryngitis. I should never use cocaine just before a person was going to use the throat. In the nose the effect is very pleasant, provided some of the solution does not trickle into the nose or larynx.—*Journal American Medical Association.*

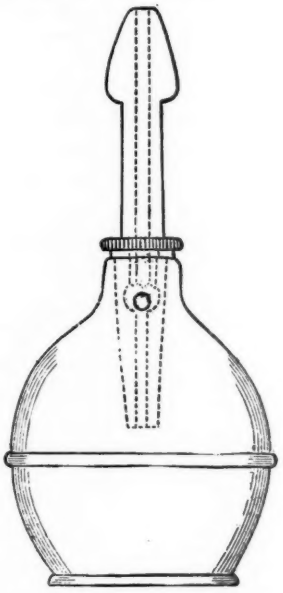
A Simple and Efficient Insufflator.

DR. D. H. GOODWILLIE (*New York Medical Journal*) says:

In a paper read before the Medical Society of the State of New York, on the "Application by Insufflation of Medicated Powders to the Upper Air Passages for the Relief of Catarrhal Conditions," and published in the "Transactions" of the Society, and also in the *Archives of Medicine*, I gave some formulas for the powders and indications for their use. Since that time they have been favorably made use of, and there appears to be a growing demand for them. In order that they may be more generally used by the practitioners who see the need of ready means of treatment at the beginning of these troubles, I have devised a simple and efficient insufflator, as seen in the accompanying cut. It consists of a soft rubber bulb flattened at one end, upon which it stands when not in use. The other end contains the stem, the upper end of which is made so as to fit the vestibule of the nostril. The lower end of this passes to the centre of the bulb. A ball-valve is contained within this, and answers two purposes, viz: (1) To prevent the powder coming out in a mass. When the bulb is pressed upon, the ball-valve is raised to the top of the recess and rests against the many projecting points. The powder striking the ball-valve, passes round it, and has its exit through the many openings at the top of the recess. (2) When the bulb is at rest and stands on its flat end, the valve closes the opening to the powder, and prevents the entrance of air or moisture.

To use the insufflator, place the nasal end well into the nostril, press the bulb between the thumb and fingers, and at the same time inhale through the nose. A forced inspiration will make an application to the nose, pharynx and larynx. Insufflation to the pharynx and larynx can be made through the mouth if desired.

The insufflator holds, when in good working order, half an ounce of powder, which will last a long time. To refill the insufflator, unscrew the stem at the top of the bulb, take out the ball-valve, compress the bulb well; then place the open end in the powder, let the bulb regain its shape, and the powder will be



drawn into the bulb; repeat until the half-ounce of powder is drawn in. The following are a few of the powders in general use:

No. 1. Benzoin and cocaine.

The old formula has been improved by the addition of one per cent. of cocaine.

No. 2. Iodoform and camphor.

No. 3. Alum and acacia.

No. 4. Belladonna and aconite.

These therapeutical agents are triturated to a dust with subnitrate of bismuth and nitrate of potassium. Very much depends on their preparation.

CONSTITUTIONAL DISEASES.

Forms of Typhoid Fever Simulating Remittent Malarial Fever.

Dr. I. E. Atkinson, of Baltimore, read a paper on this subject before the Association of American Physicians.

The object of the paper was to describe forms of typhoid fever in which all the usually characteristic symptoms are absent except mild fever. These cases commonly occur during the late summer and early autumn. They begin with a chill, or insidiously, and assume a course of a mild remittent type, never passing into a typhoid condition, never developing the characteristic symptoms of typhoid, yet absolutely uninfluenced by antiperiodic treatment. They last three, four, or even five weeks, and almost always end in slow lysis and recovery. They resemble malarial conditions, except in the persistence of fever under strongly antimalarial treatment, and in the occasional concurrence of circumstances pointing to a typhoid origin. There is no hebetude, the patient sleeps well, the tongue is slightly coated, there is almost never epistaxis, constipation is commonly observed, there are no bloody stools, no tympanites, no iliac tenderness or gurgling, and rose spots are usually absent. The patient is bright and cheerful. The more severe cases after beginning as remittents may gradually evolve typhoid symptoms. Three cases were reported showing the type of fever described occurring under conditions indicating their typhoid origin. While typhoid fever is one of the most characteristic of diseases, its special symptoms are very inconstant. There is not a sufficient realization of the mildness with which it often runs its course. Walking typhoid, although usually considered rare, is in reality frequent. Cases in which sudden accidents reveal their true nature are probably but a small portion of the whole number. Our views of typhoid fever have been largely modified. Low ranges of temperature are now often encountered. Straube and Fraentzel and others have reported severe forms of the disease with high mortality, although the temperature did not attain 102.2°. Normal and even subnormal temperatures are sometimes maintained throughout the attack. In mild cases a slight degree of fever heat is not at all uncommon. Liebermeister and others report such cases. Loomis treats "mild typhoid" with walking cases, and states that the eruption appears early and is scanty and brief, and that a diarrhea is present in most cases. This is true of many cases, but there is a large class in which constipation is the rule and rose spots the exception—much larger than is generally admitted. Liebermeister and others describe interesting examples. Dr. W. W. Johnston has most accurately described similar cases occurring in Washington. Malaria often complicates typhoid fever, but it often happens that its presence is assumed unjustifiably. A mental bias in favor of malaria is often strongly pronounced in the face of the strongest contrary evidence. The diagnosis of these cases from remittent malarial fever often rests upon the crucial test of treatment. It is admitted that occasionally antiperiodic remedies fail to control the malarial paroxysm, especially in pernicious and adynamic forms. In milder forms the behavior under quinine practically solves the difficulty. Where the full administration of the antiperiodic remedy for a number of days fails to terminate the attack, the diagnosis of typhoid fever becomes justifiable, and the prognosis can be made with a high degree of confidence. Not often earlier than

the second or later than the fourth week it will terminate almost constantly by lysis, rarely by crisis.

Dr. William H. Draper, of New York: I see many cases in New York which have been diagnosed as typho malarial fever which I consider to be cases of typhoid fever. I think that the diagnosis of typhoid fever can be usually made in the course of the first week of the disease by attention to the characteristic course of the fever. The nervous symptoms of typhoid fever are of great importance in the diagnosis. In considering a disease like this we should study it in its totality and not in its elementary parts. Dr. Atkinson has spoken of the aid given by quinine in the diagnosis. My own experience confirms that of others with reference to the use of quinine as an antipyretic in typhoid fever. Unless used in such doses as to produce a certain degree of collapse, it is useless; I believe that it does nothing more than to increase the discomfort of the patient. If in five or six days the use of quinine does not succeed in checking the fever we may conclude that we are dealing with a continued fever of the nature of typhoid.

Dr. John Guiteras, of Charleston: From my observation I have come to a conclusion different from that expressed by the author. These cases present no symptom of typhoid fever with the exception of the continued fever. They are so numerous as we go farther south that I would class them as a separate disease. I have examined some of these cases of prolonged continued fever of southern countries post-mortem, and have failed to find the lesions of typhoid fever. My view of this fever is that it belongs to the class of functional fevers. A simple continued fever may be set up by an excessive demand made upon any of the important functions of the body. I have thought that in warm climates where constant exertion was required on the part of the heat centres to keep within limits the production of heat, a paralytic condition of these centres might be induced, especially toward the close of a long and hot summer.

Dr. A. Jacobi, of New York: There is one aid in diagnosis which I have not heard alluded to, and that is the urine test of Ehrlich. This has frequently been of much service to me. It is prepared as follows:

Solution No. 1: Sodium nitrite, 1 part; water, 200 parts.

Solution No. 2: Sulfonilin acid, 5 parts; concentrated muriatic acid, 50 parts; water, 1000 parts.

Add one and one-fifth parts of the first solution to fifty parts of the second.

Equal parts of this mixture and the urine are to be mixed. Then add about sixty or seventy per cent. of aqua ammonia. In normal urine there will be only a slight discoloration, while in urine from typhoid fever it will be deep purple. This test is rarely applicable during the first two or three days. It generally can be applied up to the fifteenth day. In cases of acute miliary tuberculosis the same reaction is obtained.—*Medical Record.*

The Value of Lantanin in Malaria.

Lantanin is an alkaloid extracted by NEGRETE from *Yerba sagrata*, of the family of verbenas. Buiza noticed first the quinine-like action of the drug on the circulation, and also found it to slow nutrition and to lower the temperature. Intermittent fevers that prove refractory to quinine have yielded to the influence of 30 grains of lantanin. The most delicate stomachs tolerate the drug. In order to produce antipyretic effects in febrile conditions, the dose employed is from 15 to 30 grains in twenty-four

hours, given in pill form. In malaria the drug is administered immediately upon the paroxysm. Ninety-five times out of a hundred no further paroxysms will appear.—*Lancet.–World's Med. Review.*

Quinine.

In giving quinine, it is well to combine with hydrobromic acid ; it renders the disagreeable cerebral effects much less, does not interfere with its action, renders it more soluble, and adds to its efficacy.—*Coll. and Clin. Record.*

Ague-Cake.

For ague-cake Professor BARTHOLOW advised a combination of Squibb's aqueous extract of ergot, arsenite of iron and salicylate of cinchonidine, to be taken three times daily. Locally employ ung. hydrarg. oxidi rubri.—*Ibid.*

Thalline in High Temperatures.

Thalline in gr. iv has are markable influence over high temperatures, as shown in two cases exhibited by Professor DA COSTA at the Pennsylvania Hospital, in one of which a temperature of 105° occurring in cerebral rheumatism was reduced to normal in three hours by the above dose. Its action is accompanied by profuse sweating, and no bad after results.—*Ibid.*

Drumine.

Drumine, that was said to be so powerful a rival to cocaine, fails to give in other hands the results claimed for it by Dr. REID. E.

Melon Root.

Melon root is the latest rival of ipecac. The active principle is called melon emetine, by TOROSICVIEZ, its discoverer. E.

Collodion Coated Pills.

German physicians are now prescribing collodion coated pills. Like keratin, collodion does not dissolve until past the pyloric orifice. Such remedies as are designated to act in the lower bowel are thus made to pass the stomach unharmed. E.

Nitrite of Amyl and Cocaine.

The *Lancet* recommends nitrite of amyl to relieve the cerebral anemia of cocaine poisoning and bromide of potassium and cold applications for the convulsions. E.

How to administer Chloroform.

The best method of internally administering chloroform, according to the *North-Western Pharmacist*, is with twice or three times its own volume of olive oil, and finally emulsifying with powdered acacia. Its pungency is thus disguised. E.

Milk Casein as an Emulsifying Agent.

M. LEGER has made a communication to the *Société de Pharmacie* that is of considerable therapeutical interest. It relates to milk casein as an emulsifying agent. Emulsions made with it seem to be much more perfect and stable than any of the preparations made with the various gums, and they have the very great advantage of being supported by the most delicate stomachs, which as we all know, cannot be said of the emulsions made with mucilages. M. Cadet de Gassicourt has tried it with children at the Trousseau, and finds that with castor oil it forms an emulsion which the children take without the slightest disgust, and which is better tolerated than any other form. Certainly, if we can approach the natural emulsions, it is an achievment much to be desired. In milk, the oily part held in suspension by an albuminoid—casein—which can be precipitated from it by acetic acid, so that an emulsion prepared with this substance would be a sort of milk having the butter replaced by a medicinal substance. It is well known that not

only castor oil but cod liver oil and other oils are best tolerated in this form. To prepare milk casein, shake together four litres (about five pints) of milk and sixty grammes (about two ounces) of ammonia water, and let the mixture stand for twenty-four hours, when it will be found to have separated into two layers, the upper one containing the oily matters, and the lower one consisting of whey. The liquid is now decanted and crystallization is effected with acetic acid, as before mentioned. The magma is compressed, and ten grammes (about one hundred and fifty grains) of sodium bicarbonate are added. The casein dissolves, and, if a certain quanity of sugar is added, the saccharate of casein can be isolated in the form of a powder which will contain 10 per cent. of soluble casein. This keeps well, and has a slight odor like that of pastry. As to its use: emulsions of all substances that dissolve readily in alcohol—such as balsams, resins, etc.—can be made in the bottle itself, so that a physician may prescribe it by ordering the substance to be dissolved in the smallest quantity of alcohol, the saccharate of casein to be added dissolved in its weight of water, and syrup or water added as may be desired. For an emulsion of one hundred and twenty-five parts, add ten parts of the saccharate of casein. For the insoluble oils, the emulsion must be made in a mortar, the gums ordinarily used being replaced by the same quantity of the casein saccharate.—*N. Y. Medical Journal.*

Colorless Tincture of Iodine.

DR. A. J. BREWER, of Mountain Home, Arkansas, writes to the *Atlanta Med. and Surg. Journal:* I find a formula in the fifteenth edition of United States Dispensatory, for making colorless tincture of iodine. Equal parts of compound tincture of iodine and aqua ammoniæ mixed constitutes the formula. This must stand for twenty-four hours before it becomes colorless. I find by adding four drops of carbolic acid to the ounce, and shaking, it becomes colorless.

Frisch on Pasteur's Hydrophobia Prophylaxis.

PROFESSOR A. V. FRISCH, of Vienna, who was sent to Paris to study M. Pasteur's method, having, on his return to Vienna worked in strict accordance with the method adopted in M. Pasteur's laboratories, reported to the Vienna Academy of Sciences as follows (*British Medical Journal*):

1. The virus of rabies is contained in its most concentrated form in the brain and spinal cord of the animal that has succumbed to it.

2. Small pieces of the brain and spinal cord of a dog that has died of rabies, injected by trephining under the dura mater of other dogs, sets up the same disease with almost absolute certainty, after a latent period of slight variation (fourteen to twenty-one days); and from these dogs rabies may be similarly transmitted to other dogs.

3. Subdural insertion into dogs of portions of the spinal cord of human beings who have died of rabies, sets up the disease with the same symptoms, and after much the same period of latency. Thus the identity of the disease in man and dogs appears to be perfectly established.

4. After subcutaneous inoculation infection ensues with less certainty, and the time of incubation is longer than after subdural insertion.

5. The amount of virus inserted beneath the skin is inversely related to the period of latency, the smaller the amount, the longer the latent period.

6. By progressive subdural transferences of the disease (from rabbit to rab-

bit by means of portions of cerebro-spinal substance), a shortening of the period of incubation ensues after several transferences—at first, very irregularly, but by and by it becomes regular and is steadily more marked.

7. The so-called "fixed" virus of M. Pasteur, obtained after forty or fifty inoculations from rabbit to rabbit, and having a period of incubation of seven days, surpasses the virus of so-called "street rabies" not only in shortness of incubation, but also in the fact that the animals invariably die after subcutaneous as well as after subdural inoculation.

8. The incubation period is not further shortened by continued transference of the "fixed" virus (occasionally the animals fall ill on the sixth day); on the contrary, this period (of seven days) becomes no longer constant, and may be prolonged to eight or ten, or even twelve days. But a period of eight to twelve days incubation, with a virus of equal potency, is sometimes obtained after only two or three successful inoculations of "street rabies."

9. A fixed virus of seven days incubation may not only be obtained by M. Pasteur's method, but sometimes occurs earlier, independently of the number of transferences, and this virus appears constant in its effects and incubation period.

10. By drying at 20° C. over caustic alkali, the virus of portions of the spinal cord of an animal that has died of rabies loses power from day to day, and, after sixteen to twenty days, has lost its effect entirely.

11. Animals that have been subcutaneously inoculated with an ascending series of thus "weakened" spinal cords, are protected by the weaker virus against the effects of the stronger, if the previous successive inoculations have not followed each other too closely.

12. Animals that have been subcutaneously inoculated during the course of ten days with virus material (that is with portions of spinal cord dried for different periods) of gradually increasing virulency, contrary to M. Pasteur's statements, do not possess perfect immunity against infection with "street rabies," and, after subdural infection with the latter, remain healthy only in exceptional cases.

13. Rabbits and dogs that were subjected to preventive inoculations after trephining and subdural infection with street rabies (of sixteen days incubation period), all died of rabies with one single exception. This animal, infected subdurally fourteen weeks later, died of rabies eight days afterwards.

14. Against these experiments M. Pasteur has objected that the preventive inoculations followed each other too slowly, and now requires the application of the whole amount of (preventive) virus within twenty-four hours (the inoculations being made every two hours), and two or three repetitions of the whole series; further, that these inoculations should begin soon after the infection, at least on the following day. Experiments thus carried out on dogs and rabbits, gave not one favorable result, all the animals died even after this "intensive" treatment.

15. But further, the important result arises from these experiments that, by a quick succession of inoculations, gradually increasing in virulence, a protective power of the weaker against the subsequent stronger ones, is no longer to be safely expected.

16. Animals that were subjected to preventive inoculations after subcutaneous infection, nevertheless succumbed to rabies, with few exceptions, even when the incubation period extended to thirty-four days.

From the above experiments the conclusion may be drawn that M. Pasteur's method of conferring immunity on animals against the virus of rabies, requires still much further working out before it can be safe or trustworthy, while as to human beings there are as yet no valid reasons for the institution of a preventive treatment. On the contrary, there is a strong presumption that the actual disease may be produced by the preventive treatment itself, at least in the intensive form.—*American Lancet.*

Antithermin.

"Antithermin" is the name that has been proposed for a new synthetically-prepared compound which has just been added to the army of antipyretics (*Nouveaux Remèdes*). The systematic name of the compound is "phenylhydrazin-levulinic acid," from which it is evident that it has a near chemical relationship with "antipyrin." It will be remembered that one of the intermediate products in the formation of this widely used antipyretic is phenylhydrazin, the composition of which is represented by

$$N_2 \begin{cases} C_6H_5 \\ H \\ H \\ H \end{cases}$$

This compound has the property of combining with other compounds to a remarkable extent, as, for instance, with aldehydes, ketones, sugars, and ketone acids, antipyrin being, in fact, a methylated derivative from a compound of phenylhydrazin with acetoacetic acid. The new antipyretic is a compound of phenylhydrazin with acetopropionic acid, a homologue of acetoacetic acid, to which the name levulinic acid also has been applied, because it can be prepared by oxidizing levulose. Phenylhydrazinlevulinic acid, or antithermin, is said to be obtained by dissolving phenylhydrazin in dilute acetic acid, and adding to it a solution of levulinic acid, which gives rise to a yellow precipitate that yields well formed crystals upon recrystallization from alcohol.—*Phar. Jour. and Trans.—Therapeutic Gazette.*

Phenol-Mercury.

A new mercurial preparation has been lately introduced which bears the name of phenol-mercury. It is given in pills containing 0.02 gramme, of which the dose is at first two, increased to six daily. Stomatitis is said to be only rarely produced by its administration. Phenol-mercury is prepared by mixing an aqueous solution of one hundred and thirty-two parts of phenol-potassium with one of two hundred and seventy-one parts of mercuric chloride, when a reddish-orange precipitate is thrown down. This is washed on a filter until the filtrate no longer gives a reddish color on addition of potassium iodide. In drying the color becomes lighter, and the powder retains only a faint odor of phenol. The phenol-potassium mentioned above is made by mixing alcoholic solutions of ninety-four parts of crystalline carbolic acid and fifty-six parts of caustic potash and evaporating to dryness. It is a hygroscopic compound and difficult to keep, and should therefore be freshly prepared when required.—*Provincial Medical Journal.—Therapeutic Gazette.*

Uses of Menthol.

Menthol is most commonly used in the form of pencils; its solutions or ointments, although possibly not so convenient, are probably more lasting in their effects.

Macdonald used a ten per cent. alcoholic solution. Steward used a solution of bromethyl. The following is a formula for a useful ointment. ℞. Mentholi, 1 part; ol. olivari, ½ part;

lanolini, 8½ parts. M. F. unguentum. Sig.—Lanolin migraine ointment.

For many uses, as application to the mucous membranes, the following formula, which gives a semi-fluid product, is useful; the substance resulting may be conveniently applied by a camel's hair pencil: ℞. Mentholi, 1 part; dissolve in ol. oliv. 3 parts; and add lanolini, 6 parts. M. F. unguentum.

In the treatment of burns, the following lotion may be used in the place of ointments: ℞. Mentholi, 1 part; dissolve in ol. olivari, 9 parts; and add aq. calcis, 10 parts. M. F. linimentum.

Menthol may also be used in combination in plasters, and has in this form manifold applications.

For toothache from caries a small crystal of menthol may be placed in the hollow tooth, or a mixture of equal parts menthol and chloral hydrate. As is the case when camphor and chloral are mixed a fluid results. A pledget of cotton may be saturated with menthol chloral and placed in the hollow of the tooth.

Rabon recommends menthol as snuff in the treatment of coryza. The effect of menthol as a local anæsthetic is much weaker than its analgesic effect. The proposal of Rosenberg to combine menthol with cocaine for the production of local anæsthesia in the nose and pharynx cannot be considered of great value. In the treatment of reflex neuroses, whose origin was the nasal cavity, Rosenberg obtained excellent results with small bougies of glycerin and gelatin which contained one-sixth grain of menthol; these were inserted into the site of the lesion.—*Therapeutic Gazette.*

Note on Some of the Uses of the Oil of Erigeron.

Dr. Roberts Bartholow, in *Physician and Surgeon*, calls attention to the uses of the oil.

That oil of erigeron is entitled to the repute it had at one time as a remedy for certain kinds of hemorrhage, I am well assured by recent experience. Sometime since casting about for a remedy in a case of metrorrhagia that had severely tried my resources, I fell on erigeron oil, but with a rather despairing sense of its probable inutility. I was proportionately pleased to find that it acted admirably. As one case can no more establish the value of a remedy than one swallow can make a summer, I have since made numerous observations with the view to ascertain its real powers. I am accordingly in a position to reaffirm the statements formerly made, and to express my belief that in oil of erigeron we have a valuable remedy for certain cases of menorrhagia and metrorrhagia and, probably, passive hemorrhages in general. In some cases of neurasthenia it now and then happens that menorrhagia becomes an embarrassing complication; but I have found the erigeron oil to act very efficiently, and whilst it has moderated the flow to proper dimensions, has improved the general condition and lessened the nervous irritability.

For the most part the use of the oil of erigeron for the conditions above mentioned, are not novel. Finding, however, that it is a really effective remedy in menorrhagia and metrorrhagia, I then had recourse to it in these conditions having their origin in albuminuria and then it was I ascertained that it checked remarkably the waste of albumen. From this point it was but a step to observe how far this remedy affects the course of Bright's disease—or such chronic forms of albuminuria as are due to tubal and interstitial nephritis and cases combining these two morbid processes. No attempt was made to arrive at an exact differentia-

tion, if indeed such be possible. It suffices to state that the chronic cases of nephritis united by the common symptom—albuminuria were included. In the chronic form of Bright's disease, erigeron oil lessens the amount of albumen, lowers the abnormal vascular tension, and improves the general condition. It also seems to have a most favorable action on the headache, the nausea and other symptoms of uræmic character. Whether it be actually curative in cases not too far advanced, can be determined only by careful and sufficiently protracted trials. Thus far it can be said to promise well.

Oil of erigeron also acts in a very beneficial manner in cystitis, lessening the irritability of the bladder and diminishing the catarrh. In a case of prostatic disease with very great irritability of the bladder and much catarrh it seems to have an excellent effect.

In catarrh of the bronchial tubes, chronic bronchitis and in cough of a nervous character, I have seen very considerable relief given by it. Indeed, in these affections it has seemed to me to afford as much relief as *terebene*, which has been much vaunted of late and with justice.

In administering it, I have usually directed it in five drop doses every three or four hours. It may be conveniently exhibited dropped on a lump of sugar. It appears to me to do better in moderate doses rather frequently administered, to maintain a constant impression than in occasional large doses.

Besides the foregoing practical experience it may be mentioned that oil of erigeron is an antiseptic and in this capacity may prove useful. But if it had no other practical applications than those suggested by my own experience, it will deserve a prominent position as a remedy.—*Medical Age.*

Simple Test for Wall Paper.

A simple and easily applied test for wall papers has been devised by Mr. F. F. GRENSTTED. No apparatus is needed beyond an ordinary gas jet, which is turned down to quite a pin point, until the flame is wholly blue; when this has been done, a strip of the paper suspected to contain arsenic is cut one-sixteenth of an inch wide, and an inch or two long. Directly the edge of this paper is brought into contact with the outer edge of the gas flame, a gray coloration due to arsenic, will be seen in the flame (test No. 1). The paper is burnt a little, and the fumes that are given off will be found to have a strong, garlic-like odor, due to the vapor of arsenic acid (test No. 2). Take the paper away from the flames and look at the charred end—the carbon will be colored a bronze-red; this is a copper reduced by the carbon (test No. 3); being now away from the flame in a fine state of division, the copper is slightly oxidized by the air, and on placing the charred end, a second time, not too far into the flame, the flame will now be colored green by copper (test No. 4). By this simple means it is possible to form an opinion, without apparatus and without leaving the room, as to whether any wall-paper contains arsenic, for copper arseniate is commonly used in preparing wall papers. Tests one and two would be yielded by any paper containing arsenic in considerable quantities.—*British Medical Journal.*

Microscopic Organisms of Sea Air.

As a result of five maritime voyages, two of which were across the Atlantic and three in the Mediterranean, on board of different packets: *La Gironde*, *Le Cambodge*, *Le Said*, and *L'Amazone*, Messrs. Moreau and Miguel have established the fact that the atmosphere of

the sea shows itself exceedingly poor in bacteria ; as an average, analysis gives six of them in 10,000 litres ; moulds are even rarer. We present herewith the conclusions of Moreau and Miguel.

1. Sea air, taken either at a great distance from the shore or on the beach in ports, etc., during wind coming from the high sea, is in almost perfect purity.

2. In the vicinity of continents, the winds, arriving from the land side, drive in front of them an impure atmosphere; at 100 kilometers from the coast, this impurity has vanished.

3. The sea, then, purifies rapidly the pestiferous atmospheres of the continents ; for this reason, every extension of water of a certain width becomes an absolute obstacle to the propagation of epidemic contagious diseases.

4. Marine atmospheres, impelled on the land, purify the air they traverse ; this purification is noticeable as far as Paris.

5. The sea is the grave of moulds.

6. In normal weather, the oceans will not yield to the air the bacteria they inclose, yet, when the sea is heavy and billowy, the marine air will take up bacteria, but in a very feeble proportion.

7. The atmosphere in the saloons of vessels will always carry a quantity of microbes, incomparably greater than that of the sea, but the purity of the air in these rooms increases rapidly in the first days of voyage.

8. Finally, the air in the saloons of vessels is comparatively very poor in bacteria; it contains, to choose an instance, one hundred times less of them than the atmosphere of the habitations of Paris.—*Jour. d'Hyg.*—*Pacific Record of Medicine and Surgery.*

Gymnema Silvestre.

According to Dr. THISELTON DYER (*Nature Practitioner*), leaves of this plant, when chewed, absolutely abolish for the time the power of tasting sugar. The *Gymnema silvestre* is an asclepiadaceous plant, growing in the Deccan peninsula, and is also met with in Assam, along the Coromandel coast, and in some parts of Africa. It is a stout, woody climber, with long, slender branches. Its leaves are obovate or elliptic, acute or cuspidate, rarely cordate at the base. The powdered root has for a long time been known among the natives as a remedy for snake bites, both as a local application and when taken internally in the form of a decoction. Mr. Hooper says that the leaves have a bitterish astringent and slightly acid taste. After chewing one or two leaves it was proved undoubtedly that sugar has no taste immediately afterward; the saltish taste experienced by others was due to an insufficiency of the leaf being used. Sugar in combination with other compounds in dietetic articles is plainly destroyed as to its taste after using these leaves. In gingerbread, for instance, the pungency of the ginger is alone detected, the rest is tasteless meal; in a sweet orange the taste of the sugar is so suppressed, and that of the citric acid consequently developed, that in eating it resembles a lime in sourness. Among the several kinds of food, drugs, and beverages which affect the palate, gymnema does not render them all tasteless; it does not affect pungent and saline things, astringents and acids. Its action is limited apparently to two diverse substances, sweets and bitters. It has been noticed that sugar taken after the leaf tastes like sand; so he has found that sulphate of quinine taken after a good dose of the leaf tastes like so much chalk. He does not propose its use in the administration of nauseous drugs until its medical properties

have been more studied, otherwise the quantity of the vehicle taken might prove to counteract the effect of the medicines. The experience of several friends as well as his own is that the effect does not last for twenty-four hours as stated, but for only one or two hours; after that time the tongue resumes its appreciation of all that is sweet or bitter. The powdered leaves were submitted to the action of various solvents, and it was ascertained that the peculiar principle was capable of being dissolved out by alcohol. The alcoholic solution of the leaves was almost entirely soluble in water, and from this solution Mr. Hooper succeeded in extracting a body having the characteristics of an organic acid related in some points to chrysophanic acid, but having some distinctly peculiar reactions, and possessing the anti-saccharine property ascribed to the leaves. This body he calls gymnemic acid. He has not yet succeeded in isolating the base with which it is in combination.—*N. Y. Medical Journal.*

Betol.

Under this name, according to Mr. H. HELBING (*Brit. and Colon. Druggist*), the β-naphtol ether of salicylic acid has been patented. Its structural formula is analogous to that of salol (the phenyl ether of salicylic acid), and it is said to resemble that compound in its therapeutical action. It occurs in small tabular crystals, nearly white, is tasteless and almost odorless, and is insoluble in water and in glycerin. It is sparingly soluble in alcohol, and the addition of water precipitates it as a milky liquid.—*Ibid.*

Neutral Hydrochloride of Quinine.

M. CLERMONT (*Bulletin Général de Thérap.*) agrees with M. Boymond as to the advantages of the basic hydrochloride of quinine, which is soluble in 21.4 times its weight of water, but recommends the neutral hydrochloride as still better fitted for hypodermic use, since it is soluble in its own weight of water and has no caustic action. It may be made either by adding a solution of chloride of barium to a solution of neutral sulphate of quinine, and separating the precipitated sulphate of barium by filtering; or by adding hydrochloric acid to a solution of the basic hydrochloride.—*Ibid.*

DISEASES OF THE NERVOUS SYSTEM.

Treatment of Migraine with a Domestic Remedy.

RABON, of Berlin, writes as follows in describing his experience with this treatment in the *Therapeutische Monatshefte:*

"It is no wonder that against so common and annoying an enemy as migraine an immense array of lauded remedies are advanced. Among these we find some powerful drugs—nitroglycerin, amyl nitrite, aconitine, cocaine, and others, — and also many remedies whose application is inconvenient, as massage and electricity. It is furthest from the purpose of the writer to undervalue the effect of these agencies. If a new remedy is proposed the excuse for its introduction must be that it is simple, harmless, and easily obtainable.

As Nothnagel some years ago reported good results in treating epilepsy with common salt, it appeared to me that migraine could possibly be prevented by small doses of this agent. I accordingly ordered a young man suffering from "petit mal," whose seizures were preceded by a well defined aura, to keep common salt with him, and at the first indication of the aura to take a convenient quantity. The order was

followed, and proved successful in every instance. Encouraged by his success, an aunt of the patient, who had suffered severely for years from migraine, which was preceded by unpleasant gastric sensations, began to take salt to cure her migraine. She took a half or a whole teaspoonful, and drank a little water after it. This treatment was successful when the attack was just beginning, and a fully developed attack was stopped in half an hour.

After this case I felt encouraged to try this simple remedy in similar cases, and the results were so good that I feel justified in recommending the remedy. Where the attacks of migraine are attended by symptoms of gastric distress salt is especially efficient, if given promptly.

My record of cases up to the present embraces only six in whom a positive result was obtained. I hope, however, to attract the attention of others to the use of the remedy. An explanation of the way in which the result is obtained I hope to furnish in the future. Its power in eliciting reflex action seems to me a natural explanation of the effect. —*Therapeutic Gazette.*

DIGESTIVE TRACT.

Apoplectic Symptoms Relieved by Stretching the Sphincter Ani.

Mr. John W. Teale (*Lancet*) reports an interesting case in which symptoms somewhat like those of apoplexy seemed to be caused by obstinate constipation, and relieved by stretching the sphincter ani, and so unloading the bowels.

The patient was a lady, sixty-four years old, who looked very ill, and was in a highly nervous state. She had a waxy, yellow complexion, and looked wan, anxious and careworn. She said she had suffered much from constipation, had had several attacks of what she called "angina pectoris," and that she lived in perpetual dread of having accumulations in the bowels, from which she had suffered. Treatment by mild alteratives, stomachics and aperients proved a complete failure. More severe remedies produced vomiting. After a few days of fruitless efforts to relieve the bowels, Mr. Teale examined per anum, and found a very tight sphincter. With considerable difficulty he passed a finger through it into the rectum, which he found distended and loaded with hardened feces—the cause, no doubt, of the straining, discomfort and sense of weight. Operation seemed inadmissible. Careful and repeated castor oil enemata were given for some days, to gradually unload the lower bowel and break down the accumulated mass. Several times a considerable quantity of old feces was removed, and often the patient had some gleams of returning health and spirits. One day she took two injections, which were ineffectual, in spite of considerable straining. About 10 P. M. she became very restless and excited, and almost beside herself, wandering from room to room, scarcely recognizing those about her, constantly making attempts to relieve the bowels. About 6 A. M. the next day, whilst on the night stool, her maid noticed her face twitching, and these twitchings increased until they amounted to violent convulsions. She soon had slight but well marked symptoms of paralysis of the left side of the face, which gradually became more decided in character, extending to the left arm and leg. The pupils were regular, somewhat contracted, slightly sensitive to light. There was no stertor, but insensibility was complete. Every few minutes there was a convulsive attack, commencing with twitchings of the left side of the face, extending gradually to the left arm

and leg, and then becoming general over both sides of the body, and gradually relaxing without pursuing any definite order. A copious enema of soap and water and olive oil was given, and was retained for four hours. The convulsive attacks continued every few minutes, were more frequent and violent, and insensibility complete. On examining per anum, hardened feces could be felt floating about in the enema fluid, though, even in her insensible condition, the sphincter was so tight that the finger could only be passed through it with difficulty, nor would it allow a drop of fluid to escape.

Mr. Teale now stretched the sphincter freely. Immediately the enema fluid poured out, followed by a copious mass of offensive feces of various stages of antiquity. The convulsions continued as before. Forty grains of bromide were injected twice, and were retained. The convulsive attacks ceased after the second dose of bromide, and there were slight natural movements of the right side, but none of the left. In the evening there was another extensive action of the bowels; patient still unconscious.

The next day there was no return of convulsions; the bowels moved freely. The patient moved her left leg slightly. After this she slowly recovered. For some days she misplaced names and words. The right side of the body soon regained power, the left more slowly, and remained for some time weaker than the right. In about three weeks she returned home.

Mr. Teale thinks the operation lengthened the patient's life for nearly a year, and also relieved her from suffering. The fact that prolonged constipation from any cause is an important factor in causing apoplexy, when the coats of the arteries are degenerated, has long been recognized — an argument, no doubt, for the early and effectual surgical relief of affections of the rectum, where they are found to exist.—*Medical and Surgical Reporter.*

Linseed Oil in Pruritus Ani.

A correspondent of the *Boston Medical and Surgical Reporter* says, that a free application of linseed oil gives immediate relief in pruritus ani where there are no rectal complications. E.

Action of Infused Beverages on Digestion.

Dr. James W. Fraser has studied experimentally the action of our common beverages on gastric and intestinal digestion. These are his conclusions:— 1. It is better not to eat most albuminoid food stuffs at the same time as infused beverages are taken, for it has been shown that their digestion will in most cases be retarded, though there are possibly exceptions. Absorption may be rendered more rapid, but there is a loss of nutritive substance. On the other hand, the digestion of starchy food appears to be assisted by tea and coffee; and gluten, the albuminoid of flour, is the principle least retarded in digestion by tea, and it only comes third with cocoa, while coffee has a much greater retarding action on it. From this it appears that bread is the natural accompaniment of tea and cocoa when used as the beverages at a meal. Perhaps the action of coffee is the reason why it is usually drunk alone or at breakfast—a meal which consists much of meat, and of meats (eggs and salt meats) which are not much retarded in digestion by coffee. 2. Eggs are the best form of animal food to be taken along with infused beverages. Apparently they are best lightly boiled if tea, hard boiled if coffee or cocoa, is the beverage. 3. The casein of the milk and cream taken with the beverages is

probably absorbed in a large degree from the stomach. 4. The butter used with bread undergoes digestion more slowly in presence of tea, but more quickly in presence of coffee or cocoa; that is, if the fats of butter are influenced in a similar way to oleine. 5. The use of coffee or cocoa as excipients for cod liver oil, etc., appears not only to depend on their pronounced tastes, but also on their action in assisting the digestion of fats.—*Jour. of Anat. and Physiol.*

Cannabis Indica in Diarrhea.

Dr. Frederick F. Bond and Mr. B. E. Edwards, of Rastrick, say: Dr. S. J. Rennie, of Cawnpore, in the *Indian Medical Gazette*, calls attention to the value of cannabis indica in the treatment of dysentery. We wish to draw attention to its value in a similar condition, namely, diarrhea; especially in the type known as summer diarrhea or English cholera. Attention was drawn to it in this connection by Dr. Turner, in the *Lancet*. He says: In ordinary diarrhea (referring to summer diarrhea presumably) the formula—℞. Tincturæ cannabis indicæ, ♏x; spiritus chloroformi, ♏x; tincturæ kino, ʒj; aquam menthæ piperitæ ad, ℥j—in a modified dose will be found very serviceable. Being connected with a dispensary where thirty to forty cases of diarrhea presented themselves daily for treatment during the months of August and September, and where a great variety of remedies were tried, so great was the superiority of Indian hemp above the others, that the patients themselves got to know it, and invariably asked for the green medicine.

We have been in the habit of prescribing it in nearly all forms of diarrhea with marked benefit, combined with medium doses of morphine. In summer diarrhea the effects are very striking. There is no necessity to record cases, they are all very much alike; the great depression, the frequent watery stools, the vomiting, and the cramp-like pains are very quickly relieved, the appetite speedily returns, and by the following or third day the cases are practically well, except for some weakness and debility. The formula we generally use for an ordinary adult is: ℞. Tincturæ cannabis indicæ, ♏x; liquoris morphinæ, ♏v vel ♏x; spiritus ammoniæ aromatici, ♏xx; spiritus chloroformi, ♏xx; aquam ad, ℥j. To be repeated every one, two or three hours, according to circumstances. Directions: No food for several hours, but a little brandy and water. We have not seen one case run on to a fatal issue under this treatment.

It appears to act by increasing the astringent and anodyne properties of the morphine (the dose of morphine would have very little effect alone), by its stimulant effect on the nervous system, improving the tone, and by improving the appetite; thus enabling the system to quickly overcome the marked depression and exhaustion. Most remedies in this disease rather retard the return of the digestive function, but from our experience Indian hemp markedly accelerates it. Indian hemp seems, also, frequently to counteract the bilious action of morphine, as well as the loss of appetite, and allows it to be given where it otherwise would not be tolerated.

In other forms of gastro-intestinal disturbance it is also valuable, probably for the same reasons. It was of marked use in a case of subacute gastro-enteritis, which had existed for a few weeks before it came under our care, in a girl aged 13 years, showing the following symptoms: marked anæmia, which had gradually come on after the other symptoms; constant pain over the abdomen, especially in the epigastric region, in-

creased on pressure and after food; tongue covered with yellowish-white fur; loss of appetite; vomiting at variable times after food of partly digested material; diarrhœa, six or eight stools in a day, which were watery and green, containing partly digested food material; some rise in temperature—a little over 100° F. She was first treated with bismuth, then with effervescing mixtures, with no benefit; then with the cannabis mixture (modified to suit her age), and the symptoms very quickly subsided, the vomiting and diarrhea were checked, the pain ceased, and the appetite returned. By the end of the week all the symptoms had disappeared, except the anæmia, which persisted for a short time.

In cases of tuberculous diarrhea we have not seen much benefit, beyond a slight relief of symptoms for a short time, though we have not had sufficient experience in this nor the excessive diarrhea in typhoid fever.—*The Practitioner.*

DISEASES OF URINARY ORGANS.

Diuretic Wine.

The celebrated "Vin Diuretique, Hotel Dieu," as devised and frequently used by the great Trousseau, has this composition: ℞. Digitalis, part v.; rad. scilla, part viij.; juniperis, part lxv.; potassii acetatis, part l.; alcoholis (90 per cent.) part c.; vini albæ, part dcccc. M. The squills, digitalis and juniper berries are to be broken up, and macerated for two weeks in the alcohol and wine, the mixture being frequently stirred. At the expiration of the fortnight, it is to be pressed, strained, the acetate of potash added, and the compound filtered, when it is ready for use. —*Medical and Surgical Reporter.*

Martineau's New Remedy for Diabetes.

MARTINEAU'S new anti-diabetic remedy, which is now being called for by physicians and druggists, is an artifical lithiated arsenical water. Martineau claims extraordinary results from this water, recording 67 cures out of 70 cases, *i. e.*, 96 per cent. The mode of preparing and of prescribing this remedy is as follows: A siphon bottle holding about a litre (one quart), is taken, into this is put a powder consisting of 20 centigrammes, or about three grains of carbonate of lithia. A tablespoonful is then added of the following solution.

Take of distilled water 500 grammes (1 pint 5 drams).

Arseniate of soda 20 centigrammes (about 3 grains). M. Dissolve.

The siphon bottle is then charged with carbonic acid water from a soda fountain and is ready for use. The patient makes this water his principal beverage, taking the whole quantity in about equally divided doses with his meals. The bottle must be freshly charged every morning. Martineau allows the patient to take with the water a little wine. The diet is not modified, except that a certain amount of reserve is enjoined in the use of starchy foods, fruits and sugar.

Martineau claims to have learned this mode of treatment from Professor Rouget twelve years ago. When the diabetes is treated by lithia alone, or by arsenic alone, the result is not the same. Many of the natural mineral waters, as Vichy, Royat, Bourbole, Pourges, St. Nectaire and even Canterets, have a favorable action on diabetes; this is due, Martineau thinks, to the fact that they all contain lithia, and some of them notably Vichy and Bourbole, contain arsenic.

Any physician in country practice, where easy access can be had to a soda water generator, can prepare for his diabetic patient Martineau's remedy. He has only to fill an ordinary quart

bottle in which he shall have previously put a three-grain carbonate of lithia powder and a tablespoonful of the above mentioned solution, with gaseous water from the soda fountain, and order the whole quantity to be taken during the day after meals.

As for the curative value of this prescription, there is justification for considerable scepticism. Dujardin-Beaumetz, at the meeting of the Société de Thérapeutique, where Martineau's paper was read, expressed grave doubt as to whether the 67 cases, cited by Martineau were typical cases of diabetes, and was tempted to believe that Martineau had fallen upon a series of cases of alimentary diabetes, like those treated by Cantani, at Naples, where abuse of pastry, sweets and starches had caused a temporary glycosuria that was not true diabetes.—*Med. and Surg. Reporter.*

Pichi in Vesical Tenesmus.

Dr. A. G. Ward (*Medical Age*):

In the early part of last March I was called to see Mrs. H., an aged lady whom I found suffering extremely from irritability of the bladder, with vesical tenesmus. The urino-genital organs generally were in a state of great irritability. She had suffered from this difficulty for several years, and, to still further complicate matters, she was suffering from a bad form of pruritus vulvæ that had also existed several years.

After using various remedial measures for the relief of the vesical tenesmus and extreme irritability of the bladder, with but only partial success, I determined to try pichi, and gave her the following: ℞. Fl. ext. pichi, ʒ ij; fl. ext. hyoscyam., ʒ ij; ♏ syrup, ʒ ij. Sig. A teaspoonful before each meal and at bedtime.

This treatment, after a few days gave great relief. The vesical tenesmus began to subside, the urine became more normal in both quantity and quality. The irritability of the soft parts and neck of the bladder, however, still continued to some extent and I gave the following: ℞. Fl. ext. pichi, ʒ j; fl. ext. hydrangea, ʒ j; fl. ext. hyosciam, ʒ ij; ♏. syrup, ʒ ij. Sig. A teaspoonful three times a day and at bedtime.

This seemed at once to allay the irritability of the bladder, and with it the vesical tenesmus; the extreme irritability of the soft parts also began to abate. The obstinate pruritis that has tormented this patient so long is also greatly improved, and at this writing bids fair for an ultimate cure.

I have strong faith in pichi and in the above case attribute the beneficial results attained mostly, if not entirely, to its use.

I have this case still under treatment and shall continue the above remedies, feeling confident that, although it has existed so long, and resisted the best efforts of several physicians for its cure, by steady perseverance a perfect cure will be effected.

Bi-Borate of Ammonium in Uric Acid Calculi.

Dr. W. J. Crittenden, says in the *Virginia Medical Monthly:*

In patients who have these attacks of renal colic every day, I prescribe twenty grain doses of ammonium bi-borate every two hours, until a free passage of urine takes place; then every four hours until all ill feeling passes away; then I decrease to fifteen grain doses three times a day before meals in a glass of flaxseed tea, and so continue for several months—discontinuing it for a day or two at a time every two weeks. In cases in which the paroxysms recur once a week, I pursue the same plan of treatment.

Now, if these paroxysms recur once a month, I give fifteen grains before each meal for two or three months at a time. I find it a good plan, when we give it for a length of time, to combine with it lithiated extract hydrangea in teaspoonful doses. I will append two cases:

CASE I.—Mr. A., age 52, suffered with attacks of renal colic once or twice a month. I gave him—℞. Bi-borate of ammonium ℥ j., water Oj. M. S. Take one tablespoonful before each meal in flaxseed tea. I continued this line of treatment for two months with perfect relief.

CASE II.—Mrs. W., aged 43, suffered intensely with renal colic. I procured a sample of her urine and tested it, and found it contained a number of small uric acid calculi. I gave her of a solution like the above, one tablespoonful every two hours until she was entirely relieved. I then gave her fifteen grains every four hours for a week, followed by the following: ℞. Bi-borate of ammonium 3 v., lithiated ext. hydrangea ℥ iv. M. S. Take one teaspoonful just before each meal in flaxseed tea. I continued this line of treatment for two months with gratifying results and perfect relief. I always find the solution to be best when made fresh.

Manipulation of the Kidneys as a Means of Dislodging Renal Calculus.

An ingenious method of dislodging an impacted calculus in the kidney has been reported to the *London Lancet*, by Dr. W. H. BENNETT, of London, and which seems worthy of trial before more serious operative methods are resorted to. The patient, a woman, was quite thin and the kidney could be felt through the abdominal parietes. Manipulation of the organ was proposed with the view of bringing about the passage of the calculus down the ureter. To insure complete relaxation the administration of an anæsthetic was proposed but was rejected by the patient. The patient was then laid upon a couch, the fingers of the operator's left hand were dipped deeply into the abdominal wall over the kidney whilst his right hand was pressed forward into the loin. The kidney was easily felt between the two hands and was kneaded as thoroughly as circumstances would admit. The manipulation caused much aching and tenderness, but the patient was well enough to walk away afterwards. Two days subsequent to the manipulation the patient reported that she had suffered much discomfort for the rest of the day after the manipulation and that she was seized as she was going to bed with a most acute pain in the affected loin and side of the abdomen. The pain lasted for about half an hour, during which she vomited twice. All at once an uncontrollable desire to micturate occurred, and the pain immediately disappeared. No further pain followed. Dr. Bennett is of the opinion that a small calculus was dislodged and made its way down the ureter, although no evidence of its having passed *per urethram*, was forthcoming.

He suggests that manipulation without incision will prove of utility in certain cases of renal calculus not too far advanced, and offers the above case as corroborative of this opinion.

Dr. Bennett was fortunate in finding a case with such lax abdominal walls as would admit of manipulative efforts, and it is probable that the method practiced in this case was of value, although the result lacks that positiveness which is desirable. The method is, at any rate, entitled to consideration, and may prove a valuable adjunct to medical treatment of renal calculus.—*Md. Medical Journal.*

CONSTITUTIONAL DISEASES.

The Abuses of Milk Diet in Therapeutics.

DR. ROBERTS BARTHOLOW presents the following timely paper in the *Journal of Reconstructives:*

The therapeutical employment of milk not only has been popularized and the lay public made familiar with its various adaptations, but in the wake of the general appreciation have followed the usual exaggerations, and hence it is prescribed with little regard to the conditions properly requiring it. Under these circumstances it seems desirable to indicate the limitations of this therapeutical food, and to show wherein it may be hurtful rather than beneficial.

In certain disorders of the digestive functions milk causes a sense of discomfort, decided uneasiness, oppression—sometimes even pain, and it prolongs the morbid condition. The cases of this kind may be grouped into two classes: those in whom the casein is the offending material; those who cannot properly digest the cream or butter. We find examples of the first class more frequently amongst children, but they are by no means uncommon in adults. They are detected the more readily in early life, because the curds are rejected by vomiting, or appear undigested in the stools. Adults unable to digest casein, or who digest it slowly or painfully, have epigastric distress, heaviness, and oppression for several hours after meals stupor and disinclination for exertion coming on after an hour or two, and continuing until the offending material has passed well down the intestines.

An excellent substitute for the milk when the casein disagrees is barley water with cream. The barley water should be carefully strained and have the density of good skimmed milk, and one-sixth or one-fourth cream added, so that the mixture has the consistency of rich milk.

The second class of subjects to whom milk is unadapted are the cases of duodenal, hepatic and pancreatic diseases, because of the deficiency in the secretions necessary to the process of emulsionizing fats, and preparing them for the lymph vessels. Fats decomposing form very irritating fat acids, and the change in the reaction of the intestinal juices is the cause of various secondary troubles in the biliary functions and elsewhere. To fit milk for use under such circumstances, it must be skimmed, and about the time the stomach digestion is completed, aids to the intestinal digestion should be administered. Such aids are a soda alkali, and it may be, some pancreatic solution to effect complete digestion of the fatty constituents.

The mere bulk of the milk is an objection to its use in certain diseases. In dilatation of the stomach, the space occupied by the necessary quantity perpetuates the disease. The reflex effects of distension of the stomach in cases of weak heart, and in angina pectoris may not only cause distressing symptoms, but may even prove fatal. It cannot be too strongly stated that milk is a highly objectionable aliment in heart diseases, whenever the motor apparatus of the organ is diseased, and whenever its movements are readily influenced by morbid states of the stomach through the reflex channels.

In no malady, as I conceive, is milk more abused than in acute rheumatism. It is very often the chief—sometimes the only aliment employed during the whole course of this disease. Besides the objection inherent in its mere bulk, certain theoretical considerations of its nature should have considerable weight in deciding the question of its use. The very obvious objection that milk

furnishes lactic acid as a product of its fermentation, should not be ignored. All the world knows the intimate relations between lactic acid and the rheumatic poison. By the introduction of lactic acid, a form of endocarditis not distinguishable from the rheumatic, is set up, and of those diabetics treated by lactic acid, a considerable proportion suffered from attacks of rheumatic fever (acute rheumatism). It is difficult, of course, to determine this point with certainty, but I have reason to believe that patients with rheumatic fever do not get well so quickly, and are much more apt to have relapses when they consume much milk during the course of the disease. Surely, sufficient reasons exist for undertaking a thorough investigation of the question. My own practice in the cases in which I am consulted, is to advise against the use of milk as an aliment in acute rheumatism.

In typhoid fever, milk is the one food now given, irrespective of the character of the cases. Of late, this almost universal practice has come to be challenged. It has been depended upon without investigating the state of the digestive functions, and quite unmindful of the effect it may have on heat production. It is often given in too great quantity at a time, or so frequently that the stomach has not disposed of one quota before another is thurst upon it. Unless the gastric juice has preserved to a considerable extent its power of converting the albumenoids into peptones—which we have no right to expect—the casein resists its action; hence it follows that the materials of digestion should be administered soon after the milk is taken, and to prescribe it without reference to the ability of the stomach to dispose of it is to insure increased fever and delirium, and more frequent stools. Beside supplying the means for proper digestion of the milk, attention should be given to its administration at such intervals, that every portion given may be disposed of before another is permitted to enter the stomach. It is a trite observation, which is not therefore less true, that it is more important to the nutrition if some food be well digested rather than a large amount be merely swallowed.

Notwithstanding, since Donkin's first reports, milk has entered largely into the dietary of diabetics, its utility has recently come to be seriously questioned. If conversion of milk sugar into grape sugar does not take place, there can be no doubt of the value of milk in this disease, since it possesses so great a number of alimentary constituents. If, as is now asserted, this conversion does take place, the free administration of milk in diabetics, must be regarded as an abuse.—*Md. Medical Journal.*

Hypodermic Medication.

ACIDUM BENZOICUM.—One part dissolved in twelve of alcohol; a whole syringeful, and, if necessary, others at short intervals; as an excitant, and in uremia. Solution and syringe should be slightly warmed before injecting. (*Rhode.*)

ACIDUM CARBOLICUM.—Of a one to two per cent. aqueous solution, inject 15 to 30 minims, *i. e.*, gr. 1-6—7-11 of the acid. (Recommended first by *Hueter.*)

ACONITUM.—Dissolve gr. iss in aquæ ʒ iiss, and inject from ʒ to 6 minims, *i. e.*, gr. 1-32 to 16 aconitin.

ETHER, ACETIC ETHER, AND SPIRIT OF ETHER.—As an excitant in extreme collapse, one or more syringefuls.

APOMORPHINÆ HYDROCHLORAS.—Gr. iss dissolved in ʒ iiss of water; of this inject 8 to 16 minims, *i. e.*, gr. 1-3—1-6 of apomorphine as an emetic dose.

ATROPINÆ SULPHAS. — Dissolve gr.

1-3 in ʒ iiss of water and inject ♏ iij—♏ viij, or gr. 1-160 to 1-65 at a dose. Of *atropinum valerianicum*, the same. The combination of atropine and morphine in the proportion of one part of the first to one-tenth of the last (or less) is recommended by Nussbaum and Fraignaud. The toxic effects of the individual components are said to be obviated whilst the combined action is unaffected. Gelatine discs of morphine and atropine are to be had.

CAMPHORA.—A syringeful of a one in twelve alcoholic solution, as excitant.

QUININÆ HYDROCHLORAS (THE CARBAMIDE.)—One or two parts to ten of water are said to produce no irritant effect.

QUININÆ SULPHAS AND HYDROCHLORAS.—One part to ten of water (adding a few drops of sulphuric acid); inject ♏ v to ♏ xv or, gr. 6-13 to jss, as a dose.

These injections frequently produce symptoms of local irritation, sharp pains, abscesses, etc. According to Kobner, quininæ, hydrochlor. gr. ii-iv with water or glycerine, āā gr. viiss, (*i. e.*, in the proportion of one to four of the menstruum) yields, with warmth, a clear solution which, injected when tepid, causes no irritation.

QUININÆ BISULPHAS. — Soluble in glycerine one to three.

QUININÆ HYDROBROMAS. — Said to combine the sedative effects of bromine with the action of quinine (Gubler). It is soluble (with heat) in about 15 parts of water, or 4 of glycerine. Gr. xv in ʒ iss of glycerine, and ʒ i of water yield gr. iss of the drug to ♏ xv. Used by Soulez in intermittents, in doses of gr. viiss–gr. xv. Other salts as quinin. ferro-citricum, bitartaricum, valerinanicum, etc., are recommended, but are less important than the above.

HYDRATE OF CHLORAL.—Five parts to ten of water; one to three syringefuls, containing gr. viiss to gr. xxxvii of the hydrate to the dose. Little suitable.

COCAINÆ HYDROCHLORAS.—One to two parts, to ten of water; as a local anæsthetic. Especially recommended by Mandelbaum in combination with quicksilver, in the subcutaneous treatment of syphilis.

CAFFEINA.—Dissolve gr. xv in alcohol and water, each gr. xxxvii and inject ♏ x–♏ xv or as a dose; *i. e.*, gr. 1-6 gr. 1-3 of caffein.

CONIUM.—Gr. iss in alcohol, dil. et aquæ āā ℈ iv; inject ♏ ij–♏ iij = conium. gr. 1-65–gr. 1-32.

CURARE OR WOORARA.—A very unequal preparation of differing solubility: gr. iss in ʒ iiss of water; inject ♏ iij–♏ viij, containing of curare gr. 1-32–gr. 1-6. The dose is not accurately to be laid down, and must be determined by the efficacy of the drug previously proved by trial upon animals, and by the existing circumstances of the case. Offenburg injected in hydrophobia three grains in 4½ hours, and Penzoldt 5¼ grains in 10¼ hours.—(*Berl. klin. Woch.*)

DIGITALINE.—Gr. iss in alcohol et aquæ āā ʒ iiss; inject ♏ iij—♏ vj = gr. 1-65–gr. 1-22 of digitaline.

EMETIN.—Dissolve gr. iss with a little sulphuric acid in ʒ v of aqua; of this inject ♏ viij–♏ xvj=gr. 1-27–gr. 1-13.

EXTRACT OF PHYSOSTIGMA.—Glycerine solution (one part to sixty, M. Rosenthal), and in water gr. iiss to ʒ i (Eschenburg)—gtt. i–v in trismus neonatorum.

EXTRACTUM OPII.—Dissolved in water and filtered. Dose of each injection, ♏ i–ij = of the drug, gr.½–gr. i.—(Lebert.)

EXTRACTUM SECALIS CORNUTI AQUOSUM. (Ergotin, according to Bonjean, Ergotinum bis dialysatum.)— ʒ vi with alcohol, dilut. et glycerin āā ℈iv; ♏

viij–ℿ xvj. Ergotinum dialysatum is better adapted for injections (Berg), pure or with water 1 to 4 ℿ iij–ℿ viiss to the dose. Dragendorf has introduced a *Solution acid. sclerotinici*, said to contain the active principle of secale cornut.; gr. 7-11–gr. 3-4 in ℿ iij to ℿ iij 3-4 of water.

Ferri Oxidum Dialysatum, Ferri Albuminatum, Peptonatum, Etc.—On account of their insolubility, local irritability, and because required to be given for long periods, iron preparations are little adapted to subcutaneous injection. Even the ferrum. pyrophosphor. ammon. citricum, recommended by Huguenin has not proved good in our practice. It is moreover easily decomposed.

Hydrargyri Albuminatum (according to Bookhart).—The deposit of ℈ ii of the sublimate filtered and washed with blood serum, is with ℈ vss of common salt, diluted by water to a quantity equal to 200 grammes or ʒ vj–ʒ viij. ℿ xv of the solution contains gr. ¼ of the sublimate in albumen. Inject ℈ vss once or twice daily.

Hydrargyri Chloridum Corrosivum.—Dissolve gr. iij¾ in ʒ vi of water, and inject ℿ xvj once or twice daily dividing the injection in two different spots (Lewin). Gr. iij¾ in ʒ iij¾ of water and inject ℿ v–x (gr. 1-13–gr. 1-6 of the sublimate) as a dose (A. Eulenberg). The solution of the sublimate is recommended by V. Bamberger, and the one per cent. hydrargyrum peptonatum. The combination of a one per cent. sublimate solution with 3 per cent. of chloride of sodium is highly spoken of (Lasser, Stern). In all subcutaneous injections of mercury it is absolutely essential that the needle, canula, etc., be subjected to the most thorough disinfection and cleansing, and that the needle be buried in the muscular tissues.

Hydrargyri Chloridum Mite (Neisser).—Calomel and chloride of sodium, each ℈ iv, and water ʒ xiij. Two injections a week of ℿ xv–ℿ xxv.

Hydrargyri Iodidum Rubrum, dissolved in a solution of iodide of potassium (A. Martin). About the following proportions are recommended: Hydrag. iodidi rub. gr. iv, potass. iodid. gr. xxxvii, aquæ destill ℥ vi. Inject of this ℿ viij–ℿ xvj (=gr. 1-13 to 1-7 of the drug).

Hydrargyri Formamidatum (Liebreich).—ℿ xvj corresponding to gr. 1-6 of the red oxide. For syphilis.

Liquor Ammonii Anisati, pure.—ℿ xii–xvj, as excitant.

Liquor Potassii Arsenitis. (Fowler's Solution).—Dilute with 2–3 parts of water; in single doses corresponding to ℿ ii–iii of Fowler's solution. Recommended for systematic effect in chorea, tremor and neurosis, by Eulenberg, and for local effects upon malignant new-growths.

Morphinæ Hydrochloras. — Dissolve gr. iss in ℈ iv of water; of this inject ℿ v–ℿ xv (=morphia gr. 1-10 to gr. ½.) If in exceptional circumstances greater doses are desired, give a more concentrated solution.) Aqueous solutions of morphine are apt to gather mold. Avoid attempting to purify such and to make them useful by filtering them, because by filtration and the absorption of the filter paper the strength of the solution becomes doubtful. Camphor water instead of pure water is recommended, though the same fungus growth has been observed with this. Still better is to substitute glycerine for water, in the proportion of one to ten parts, and dilute with water when used. ℞ morphinæ hydrochlorat, gr. xv, warm with glycer. pur. ʒ iiss; dissolve and add aquæ distill ʒ iiss. Of this, ℿ xv to ʒ iss=gr. 1-5 to 6-13 of morphine.

NICOTINE.—Dissolve gr. 1-3 in ℈iv of water and inject of this ♏iv equivalent to gr. 1-65 of nicotine.

PILOCARPINÆ HYDROCHLORAS.—Gr. iii in ʒ iiss of water, inject ♏ xv (=gr. 1-3 pilocarpine).

STRYCHNINÆ SULPHAS.—Gr. iss in ʒ iiss of water. Of this inject ♏ iii–♏ x, *i. e.*, from gr. 1-45 to gr. 1-10 of strychnine.

TINCTURA CANNABIS INDICÆ (with water).—♏ v–♏x, in each injection.—(A. Eulenberg.)

TINCTURA OPII.—♏ iii–♏x, without admixture.

VERATRIN.—Gr. ¾ in ℈iv of alcohol, and dissolved in ℈iv of water. Inject of this ♏ iii–♏ x, equivalent to gr. 1-65 to gr. 1-22 of veratrin. Not well suited for injection.

Bacteria in Ice and Their Relations to Disease.

In summarizing his study of this subject, Dr. T. MITCHELL PRUDDEN, in *New York Record*, says:

Let us now review briefly the more prominent facts which this study has elicited. We have seen that by the biological analysis of water and ice we are enabled to detect with certainty the presence of bacteria, some species of which can give rise to serious disease, and that chemical analysis alone does not suffice, in cases in which such organisms may be present, but that when we have determined the number of bacteria present in water or ice, a great deal of careful study of other conditions is still necessary in order to determine whether the water or ice is suitable for use or not.

We have seen that the popular impression that water purifies itself in freezing, is only partly true. While some gross particles, and to a certain extent materials in solution may be largely removed, the bacteria, which are the most important, if not the sole agents in water deleterious to health, are only in part destroyed by the act of freezing. This partial purification from bacteria is not brought about by their expulsion from the water, but by the death of a varying proportion of them, which cannot survive this reduction of temperature. So that, if the bacterial contamination of the water is extreme, or is largely made up of the more hardy species, the ice formed from it, even though quite transparent, may still contain large numbers of the living germs.

Different species of bacteria possess different degrees of vulnerability to the action of low temperature. In some species nearly all the individuals are killed by prolonged freezing in water, while in other species a small proportion only is destroyed, and between these extremes are other species possessing intermediate degrees of resisting power.

Certain species of bacteria which are capable of producing serious and even fatal diseases in man—the bacillus of typhoid fever and the common bacterium of suppuration—are capable of resisting a prolonged exposure to a low temperature with the destruction of a part only of the individuals thus exposed.

The capacity of resisting a low temperature varies not only in the different species, but among the individuals of the same species, depending upon their condition of vitality when subjected to the deleterious influence. It varies also with the time of exposure to the cold and its intensity, and repeated freezings and thawings suffice to completely exterminate individuals and species which can successfully

resist a steadily maintained low temperature. A persistent low temperature without freezing is more efficacious than when crystallization occurs.

While no absolute percentage of destruction can be given which will indicate the degree to which the water containing bacteria usually purifies itself from them in the act of freezing, experimental data justify the belief that in ordinary natural waters there may be a purification of about ninety per cent.

The effect of freezing may, in a general way, be compared to that of filtration, but there is a very significant difference between them. By filtration the various species, dangerous and harmless, are eliminated with about equal efficiency, while in the purification by freezing, the dangerous disease-producing species may be retained if they resist low temperatures, while more or less of the harmless forms may be destroyed. Freezing, therefore, acts as a selective filtration might, and may not free the water from all forms alike.

Cold Water Treatment of Typhoid Fever, According to the Method of Brand.

DR. S. SOLIS COHEN, of Philadelphia, gives the following table in an article published in *Medical and Surgical Reporter*, June 25, 1887 :

The difference between systematic cold bathing (the Brand method or veritable "water treatment") and the occasional employment of the cold bath (as, for instance, in the antipyretic or Liebermeister method ; or the employment of the graduated bath, as in the method of Ziemssen), is strenuously and repeatedly insisted upon. The difference between the new and old Liebermeister methods on the one hand, and the Brand method on the other, are thus tabulated :

Brand or Water Treatment.	*Liebermeister or Antipyretic Treatment.*
1. Severe cases of typhoid are in all respects converted into mild ones, and mild cases into milder.	1. Change into an afebrile typhoid ; *i. e.*, one which runs its course without increase of temperature, without regard to disturbances of function.
2. This happens : *a.* By prevention of any rise of temperature, and the gradual establishment of a temperature at or near the normal. *b.* By averting functional disturbances of the organs. *c.* By restriction and suppression of the morbid process. *d.* By prevention of complications.	2. This happens : *a.* By reduction of excessively high temperature. *b.* By conversion of the continued or subcontinued fever into a remittent.
3. Every third hour a bath at 15° R. (39° F.) for fifteen minutes, as long as the temperature exceeds 39° C. (102.2° F.), cold affusions and compresses and good nourishment.	3. Formerly : Baths when body heat equals 40° C. (104° F.) Every other evening an antipyretic drug. At Present : An antipyretic every evening and baths through the night sufficiently often to keep the temperature nearly normal. During the day nothing, or at least only when there is great excess of temperature, in which case the cold bath.
4. The treatment is directed against the morbid process in toto.	4. Here only against one symptom — elevation of temperature.
5. The bath is employed exclusively.	5. Baths and atipyretic drugs.
6. Mortality : When the treatment is begun in time and properly carried out, 0 per cent. In family practice, 1 per cent. In (general) private practice, 3 to 4 per cent. In military hospitals, 4 per cent. In general hospitals, 5 per cent. Without material variation.	6. Mortality : Formerly : Average 7 to 8 per cent. ; varying from 0 to 23 per cent. At present : 10 to 18 per cent., with considerable variations.

The author adds : One sees that the two methods have nothing in common

but the bath ; in all other respects they differ as much as a painting by Rafael and a modern chromo-lithograph. His object in thus insisting and re-insisting upon the difference between hydrotherapy, or the exclusive use of cold baths and antipyresis, or the employment of cold baths as an adjunct to other measures directed against high temperature only is both to prevent the mortality of the latter method from being advanced in argument, and to emphasize the fact that systematic cold bathing does more than reduce fever ; for if that alone were the object, some would argue that we need not take all this trouble, but content ourselves with antipyretic medication.

Stooping Forward.

Under this caption, the *Lancet* says : Every one knows that stooping forward, particularly after rising quickly from bed in the morning, when the stomach is empty and the heart has less than ordinary support from the viscera below the diaphragm, is very apt to occasion a form of faintness with vertigo, not unlike that which occurs in sea-sickness. We do not at the moment speak of the faintness and giddiness from cerebral anæmia, which are directly consequent upon suddenly assuming the erect, after long continuing in the recumbent, posture, but of the more alarming sensation of being in the centre of objects which are rapidly passing away, usually from left to right, with loss of power to stand or even sit, and an almost "nightmare" feeling of inability to call for help or do anything to avert a catastrophe, while throughout the experience the sufferer retains painfully acute consciousness. This, we say, is familiar as one at least of the effects not uncommonly produced by stooping forward under the special conditions indicated. With many other varieties of the vertigo consequent upon heart weakness or cerebral anæmia, observation or experience has made us all acquainted. We can not, however, help thinking that the consequences of even partial compression of the veins of the neck, offering an obstacle to the return of blood from the head, with its important organs, are not so well recognized. The peculiar form—or, more accurately, the several forms—of headache distinctly caused in this way when the head is long bowed forward on the chest, bending the neck on itself, can not fail to occur to every one ; nor will the high tension of the eyeball, the turgid and heavy eyelids, the snuffling nose, the deafness, with buzzing or throbbing in the ears, the heavy breathing, and the puffed and perhaps flushed or darkened color of the face, resulting from the obstructed venous circulation through the bended neck, be forgotten. There are other and more perilous, though secondary, effects of leaning forward when the heart is weak, or the blood-vessels are not so strong as they ought to be, which should not be overlooked. Beyond question the extra strain thrown upon the apparatus of the circulation by anything that impedes the free passage of blood through almost any part of the venous system is more severe and dangerous than a physically equal strain thrown on the arteries. At least, this is so in adult life, and, without going further into details in connection with the *modus operandi* of the mischief to which we point, it may be permissible to urge that the subject is one to which attention may be usefully directed. The weakly, and those who are not unlikely to have hearts readily overburdened, and blood vessels easily stretched beyond recovery or even ruptured, should be warned quite as earnestly against suddenly assuming, or too long retaining, postures

which do—however slightly and partially—impede the return of blood through the veins. We know how prolonged sitting may cause the veins of the legs to become distended, and either give way or permit the extravasation of their contents. When this sort of thing happens, even though in comparatively trifling degree, in the case of vessels directly connected with such delicate organs as the eye, the ear, and the brain, it is easy to see that the results may be very serious in their character; and, probably, few postures commonly taken up by persons who lead somewhat sedentary lives are so prone to do mischief unnoticed as that of "leaning forward," as at work at a table which is not sufficiently high to insure the head being so raised that the veins of the neck may not be in any way compressed or the return of blood from the head embarrassed or delayed. We see reason to believe that if this apparently small matter were more generally understood, there would be fewer head and heart troubles, and we will go so far as to say that some lives now lost would be saved. —*N. Y. Medical Journal.*

Cod Liver Oil.

DR. HARE informs the readers of the *Boston Medical and Surgical Journal*, that he has found by actual experiment that cod liver oil, containing a little bile, is absorbed in less than half the time when applied externally, than the same oil would be without the bile. E.

Elimination of Alcohol by Injections of Chloride of Sodium.

The *Druggist's Bulletin* reports experiments by Dr. SANQUIRICO, of Vienna, in which he caused the rapid elimination of fatal doses of alcohol, strychnine and aconitine from dogs, by injecting into the jugular vein a watery solution of chloride of sodium of eight per cent. of the weight of the animal. "In every case the fatal end was prevented." E.

Subnitrate of Bismuth.

Subnitrate of bismuth cannot be as harmless as hitherto supposed, if a late communication of the Paris correspondent of the *British Medical Journal*, is to be credited. A perfectly pure article, when applied to a burn on the left arm of a woman of thirty, produced such alarming constitutional and local symptoms as violent diarrhea, continued vomiting, offensive breath, gangrene of the palate and loosening of the teeth. The application had to be removed. E.

Permanganate of Potash in Malaria.

A West Indian physician recommends through the *New York Medical Journal*, the use of from half a grain to a grain of permanganate of potash in water, three times a day, for malarial fever. Each dose is followed by five grains of pure pepsin to prevent nausea. E.

Agaricin as Used in Bellevue Hospital.

Agaricin (the active principle of agaricus albus) gives uniform results in checking excessive perspiration in phthisical and fever patients. The following formula is used at Bellevue Hospital: ℞. Agaricini (Merck), gr. x; atrop. sulph., gr. j.; acidi sulph. arom., ♏ 1200. Dissolve and filter. Dose ♏ x, containing 1-12 gr. agaricini, 1-120 gr. atrop. sulph. and ♏ x arom. sulph. acid. To be administered in syrup of simple elixir.

It may also be advantageously given in pill form, combined with Dover's powder. Thus: ℞. Agaricini, gr. ij.; pulv. doveri, gr. xxv. M. Ft. pil. No. xx. Sig. One pill five or six hours before retiring or sweat comes on. Its

action is slow, hence the necessity for giving it early.—*Quarterly Bulletin.*

A New Cure for Stuttering.

COEN (*Ctrlbl. f. klin. Med.—Lyon. Méd.*), acting on the principle that a stutterer does not stutter when he speaks in a low tone, advises the following course of treatment: Absolute silence for a preparatory period of eight or ten days; speaking only in a low tone for another period of the same number of days; and a gradual elevation of the voice during the next ten or fifteen days.—*New York Medical Journal.*

Trimethylcarbinol and Dimethylcarbinol.

At a recent meeting of the Paris Société de Thérapeutique (*Gaz. Hebdom. de Méd. et de Chir.*), M. Blondel read an account of certain investigations of these substances by Dr. Chapiroff, of St. Petersburg. Both of them are tertiary alcohols, and, unlike the primary alcohols, they are sedatives. Dimethylcarbinol is a powerful depressant of the nervous system, more rapid and intense in its action than the other. Trimethylcarbinol, given to man in doses of from five to fifteen drops twice a day, causes a manifest lowering of the arterial pressure, together with a state of apathy and drowsiness, followed by deep, tranquil sleep. It appears to be indicated, therefore, in cases characterized by excitability, whether from alcohol or from a neurosis.—*Ibid.*

Iodol in Diphtheria.

In order to test the statements of Dr. MAZZONI, Dr. L. L. Stembo, of Vilna, tried (*Proceedings of the Vilna Medical Society*) the local use of iodol in seven cases of diphtheria, two of which were severe. The drug was applied either alone, in powder, or in the form of a solution. (℞. Iodol. ʒss.; liq. vini, ʒ ss.; glycerini, ʒ iijss.) All the patients recovered after treatment lasting from four to six days. The advantages claimed by Dr. Stembo for iodol are its complete harmlessness, its freedom from unpleasant smell or taste, the painlessness of its application, and the absence of any untoward secondary effects, such as loss of appetite, nausea, vomiting, etc.—*Medical and Surgical Reporter.*

Specific for Scarlet Fever and Diphtheria.

ILLINGWORTH claims that biniodide of mercury is a specific for scarlet fever and diphtheria. Given in scarlet fever, he says, defervescence sets in immediately upon the administration of the medicine, instead of upon the fifth day, and no desquamation ensues. Its specific character in diphtheria is shown by the rapid disappearance of the membranous deposit and by the reduction of temperature. The efficacy of the medicine depends upon the diffusible potassic iodide carrying the germicide biniodide to every portion of the circulation.—*British Medical Journal.—World's Medical Review.*

Renou's Method of Treating Diphtheria.

M. BARBOT has applied Renou's treatment during three years with admirable success. During this period he treated fifty-one cases of diphtheria, forty-eight of which terminated favorably. The author employs fumigations. His method is to place on a petroleum stove an earthen pot full of boiling water, into which is put a tablespoonful of Renou's liquor every two hours for adults, and every three hours for children from 1 to 10 years; a constant temperature of 20° to 25° C. (68° to 77° F.) is maintained in the room, or still higher if possible. In large rooms he surrounds the patient's bed with large sheets nailed to the floor, thus forming

a small room, in which a high temperature may easily be maintained. The patient's throat is never touched. The patient is nourished with roasted meat, boiled eggs, soups, milk and good wine. Ninety four per cent. of the slighter cases of this affection are cured by Renou's treatment.—*Med. and Surg. Reporter.*

The Treatment of Diphtheria.

DR. PALCARDY writes as follows: For thirty years I have every year treated several cases of diphtheria, and in some years have observed epidemics. In young children cauterization is next to impossible, but in adults it is easy, though disagreeable. I have always employed it in adults, conjoined with constitutional treatment, and have never, from the time I commenced the treatment, had a single unsuccessful case within the first twelve hours of the disease. This is the procedure: As soon as diphtheria is recognized, I apply at once cauterization with a solution of carbolic acid: ℞. Acid carbol, ʒ j; glycerini f ʒ ij; aquæ f ℥ j. M. The throat, tonsils and all affected parts are painted with this solution once or twice a day. After cauterization, the throat is gargled with some soothing liquid, such as: ℞. Potass. chlorat. ʒ j; tr. ferri. chlor. f ℥ j; aquæ f ℥ viij. M. For constitutional treatment, the following is prescribed; ℞. Potass. chlorat. ʒ i–ʒ iv; tr. ferri. chlor. f ℥ ss; aquæ f ℥ iv. M. Sig.—Teaspoonful or more every hour, with brandy, wine, beef tea, etc.

The character of this disease being asthenic, you must not give any weakening agent. The basis of treatment ought to be stimulant and tonic, the rest being symptomatic. The treatment by cauterization is regarded as a local stimulant, and hence as an adjuvant to constitutional stimulation. After cauterization I have always noted an improvement in the apearance of the ulceration. The false membrane is reproduced, but is very often thinner, less organized and smaller. This renewal is rather the consequence of the progress of the disease than the result of cauterization. I have rarely been obliged to cauterize more than twice a day.

To assist the other treatment, sulphur is burnt in the patient's chamber. These emanations of sulphurous acid which form in the air, besides acting as a disinfectant, have also a direct action in dissolving the false membrane, either chemically or by stupefying the bacteria of contagion.

The author employs a few whiffs of chloroform in the dyspnœa occurring in diphtheritic paralysis. This probably causes a disappearance of the spasm of the glottis. In adults he has had a mortality of one or two per cent., though in young children scarcely three or four per cent. are saved.—*L' Union Médicale.*

Suggestions to Patients under Treatment.

1. Avoid violent exercise of any kind; you can exercise the lungs without putting the whole body in motion.

2. During each treatment, first breathe out all the air you can possibly force from the lungs, then breathe in from the inhaler till every available portion of the lung is called into use.

3. Nothing that would interfere with the free expansion of the chest should be worn.

4. Sleep in large, well ventilated rooms.

5. Breathe through the nostrils.

6. Remain out of doors in the sunshine as much as possible.

7. Avoid the use of tobacco in any form.

8. Keep out of draughts.

9. Keep away from third-rate hotels and restaurants.

10. Eat three principal meals each day, and, if possible have light lunches between meals.

11. Cough only when necessary, then do not cough till the lungs are filled with air—it will do some work and not produce as much distress as when you cough with your lungs almost empty.

12. Wear woolen underclothing, woolen hose, thick-soled boots.

13. By massage and bathing keep the skin in good condition. Your lungs cannot improve if the skin is inactive.

14. Do not expect any miracles; it took time for your bodily health to become impaired; it will take time for it to be restored.

15. Make a business matter of your treatments; be punctual; be exact in following out every matter of detail.

16. A common source of dyspepsia is swallowing of expectoration. Do not do this.

17. The sputa should be ejected into vessels in which it can be disinfected.

18. Drink freely of water; hot water preferred; ice water should not be used. —*Denver Medical Times.*

Antipyrine in Subcutaneous Injections, as a Substitute for Morphia.

PROFESSOR GERMAIN SÉE has just communicated to the Paris Academy of Medicine the results of his experience in the Hôtel Dieu with antipyrine in subcutaneous injections, as an analgesic. The solubility of antipyrine in distilled water favors this mode of employment, eight grains being readily dissolved in a hypodermic syringeful of water. The injection causes a brief painful sensation of tension, then there is a considerable lull in the pain, whatever may be its cause.

Professor Sée finds that these subcutaneous injections have none of the ill effects which almost constantly attend the hypodermic introduction of morphine, such as vertigo, or vomiting; there is no danger of too deep or too prolonged somnolence, and, moreover, to its calmative action, antipyrine often conjoins that of a curative action. He calls attention to a series of cases of acute rheumatism which were signally benefited by two or three injections of half a gramme of antipyrine; to one case of acute gout, very painful; to several cases of chronic gout and nodular rheumatism, which were in a marked manner relieved and favorably modified by antipyrine employed subcutaneously and taken internally.

Some of Professor Sée's most signal successes were cases of neuralgia. Three patients suffering from tic douloureux of the face, one of three years standing, another of five weeks, and the third of six days, were permanently relieved in several hours; these cases came under the observation of several of Professor Sée's colleagues. Several cases of zona of long standing were cured; and the same may be said of cases of migraine (one of these was ophthalmic migraine). He considers as deserving of special mention the relief given in the lightning pains of locomotor ataxia; some of these sufferers were enabled by means of a daily injection of antipyrine, and three or four gramme doses by mouth, to dispense altogether with the morphine to which they had become accustomed.

In bilious colic, where morphine injections have heretofore been deemed necessary (despite the fact that morphine diminishes the biliary and intestinal secretion), antipyrine injected subcutaneously has relieved the pain quite as effectually as morphine and without any of the disadvantages above named. In three cases of nephritic colic there was the same favorable result, without, of course, any arrest in the urinary secretion.

In painful affections of the heart, and angina pectoris in particular, hypodermic injections of antipyrine have markedly reduced the number and intensity of the attacks, without any disturbance in the cerebral circulation.

In attacks of asthma, whether bronchial or spasmodic, antipyrine has afforded relief without suppressing the bronchial secretion; but it should be reserved principally for the acute paroxysms, when iodide of potassium has lost its effects, and when morphine succeeds only in large or frequently repeated doses.

Professor Sée's conclusion is that his experience hardly indicates an instance where the hypodermic use of antipyrine may not profitably be substituted for that of morphine. We have thus at hand, he adds, a means of avoiding that fatal morphinism, with all its grave cerebral and other organic troubles, into which so many are led by reason of the physical suffering from which they are impelled to seek deliverance. Antipyrine seems to him to be the ideal analgesic, assuaging pain, and diminishing the reflex excitability of the cord; it ought to be of great use in the vague, general, nervo-muscular pains of hysteria and other neuroses. Being absolutely safe, it must tend more and more to supplant morphine.

DISEASES OF THE NERVOUS SYSTEM.

Treatment of Locomotor Ataxia with Rarefied Air.

DR. H. M. LYMAN gives the following summary of his opinions upon the treatment of locomotor ataxia:

1. That progressive locomotor ataxia cannot be cured by dry cupping.

2. That the painful sensations which accompany the evolution of the disease may sometimes be relieved by this method of treatment.

3. That the principal advantage resulting from the use of Junod's cupping apparatus consists in the improved nutrition of the muscles of the limbs which are subjected to its action.

4. That the delay of muscular atrophy thus procured is due to the local action of rarefied air upon all the structures of the affected parts and is limited to the tissues which are actually inclosed within the exhausted receiver.

5. That the improvement of nutrition is, therefore, principally accomplished by direct action, rather than by reflex influences exerted through the spinal cord.

6. That in the use of rarefied air we employ an agent which is competent to fill a subordinate and limited, yet often serviceable position in the treatment of cases that are characterized by a tendency to muscular degeneration.

This, probably, is also true in other diseases besides progressive locomotor ataxia.—*Jour. Mental and Nerv. Dis.*

Hyoscin in Paralysis Agitans.

PROFESSOR W. ERB speaks most highly of the usefulness of hyoscin in this form of paralysis. He has observed no positive cures obtained by its use, but marked palliation of the symptoms. In one case after long use a kind of remission was observed. The others were much helped. For some hours the patients were able to move their limbs freely and felt much more comfortable. The trembling was removed completely in some cases and in others almost so for several hours or for a quarter or half day. The usual dose was 2 to 3 milligrams; these small doses often also caused sufficiently marked by-effects to prevent their being increased. The improvement in the general condition was so much greater than the discomfort of the side-effects that the latter were not

objected to by the patients. The by-effects usually noticed where the medicine acted with unusual power or was used in a larger dose than was readily borne, were generally a feeling of weakness, drowsiness, heat about the face, dryness in the throat, some dizziness, uncertainty of vision and heaviness of speech.—*Therapeutische Monatshefte.*—*N. Y. Medical Journal.*

Amylene Hydrate as a Hypnotic.

VON MERING, of Strassburg (*Therap. Monatsh.—Internat. Klin. Rundschau*), after a number of experiments on animals with this tertiary alcohol, has used it as a hypnotic in the cases of sixty persons, giving, in all, three hundred and fifty doses, ranging from three-quarters of a dram to a dram and a quarter. He regards it as preferable to chloral hydrate in cases that do not call for a very energetic drug, for he thinks it less dangerous; he remarks also that it has several advantages over paraldehyde. In potency, half a dram of amylene hydrate is equal to fifteen grains of chloral hydrate or three-quarters of a dram of paraldehyde. Like chloral, amylene hydrate is of uncertain action in cases of sleeplessness due to pain. It is a very mobile liquid, of a peculiar ethereal taste somewhat suggestive of camphor, with a refrigerant after-taste like that of peppermint. It dissolves in eight parts of water, and mixes with alcohol in all proportions. The following formulæ are given: Amylene hydrate, 105 grains; extract of licorice, 150 grains; distilled water, 2 ounces. Half this quantity to be taken at bedtime.

Amylene hydrate, 75 grains; mucilage of gum arabic, 5 drachms; distilled water, 1½ ounce. For an enema.

Amylene hydrate, 90 to 105 grains; morphine hydrochloride, ⅓ to ½ grain; extract of licorice, 150 grains; distilled water, 2 ounces. Half to be taken at bedtime, in painful affections, especially peripheral neuralgias.

Amylene hydrate, 1 dram; morphine hydrochloride, ¼ grain; mucilage of gum arabic, 5 drams; distilled water, 1½ ounce. For an enema, to be used for the same purpose as the preceding prescription.—*Ibid.*

Antipyrine in Chorea.

WOLLNER has been led to prescribe this drug in chorea by reason of its influence on the nervous derangements incident to rheumatism. In the case reported, the attack of chorea followed a sudden disappearance of rheumatic symptoms. Sodium salicylate, potassium bromide, and propylamine having been tried in vain, antipyrine was ordered in doses of fifteen grains three times a day, a cure was effected in twelve days.—*Ibid.*

The Actual Cautery in Certain Chronic Neuroses.

DR. T. J. HUTTON (*Medical Register*):

1. *Paralysis of the Will Power.*—Mrs. S., aged forty-five, had, within a brief period, suffered the heaviest misfortunes—the loss of husband, children, and means. Under this profound shock she sat motionless, dazed, and apparently drifting into imbecility or cerebral softening. The actual cautery was applied to the spine, four marks about the size of a ten-cent piece being made on both sides of the spine an inch or two outside the spinous processes. Result, speedy cure.

There are many allied disorders in which this remedy might avail, as in trance and hysterical conditions. It is upon such as these that charlatans and religious mountebanks work their so-called "miracles." A prick of a needle or the cautery afford prompter and better results. Anything that rouses cures.

2. *Pure Spinal Irritation.*—(By pure I mean unattended by spinal or other organic lesion.) In two single, middle-aged females one application of the actual cautery to the spine cured the ailment.

3. *Incipient Locomotor Ataxia.*—A man, single, aged forty-seven, who presented all the characteristic symptoms of locomotor ataxia was cured by two applications of the cautery to the spine, supplemented by galvanism and medicine (iodide of pot. and bichloride of mercury). I would suggest its use in the early stage of paralysis of the insane. Only one case of this malady has ever been arrested, and this arrest was caused by the patient falling accidentally in a vessel full of boiling water.

4. *In the Early and Middle Stages of Self-Abuse.*—Here, before the mind becomes besotted and embruted, the cautery produces a profound impression on the entire nervous system, and, as it seems to me, aids in the power of self-control. I obtained good results from the cautery in two such instances—in a boy, aged sixteen, who had been addicted to the habit several years, and in a young man, aged twenty-four, who had been a victim of the habit for nearly ten years.

5. *Impotence in the Male.*—A man, aged forty-eight, who had practised self-abuse when a boy, became impotent. He had quit his home and family, and repeatedly threatened self-destruction. One application of the cautery, supplemented by galvanism, coco, and damiana, restored him to health and home.

This agent is of wider application than nervous affections.

6. *Post-Sural Abscesses Following Scarlet Fever in a Girl aged Thirteen.*—In this case a sinus back of the left ear had, off and on, discharged dirty, sanious matter for more than three years. A wire at white heat was introduced in the sinus, and there was no further discharge.

Applied also in the early stages of certain bone diseases, the cautery yields incomparable results.

DIGESTIVE TRACT.

Treatment of Flatulent Dyspepsia.

HUCHARD recommends the following formulæ: Salicylate of bismuth, 2 parts; calcined magnesia, 2 parts; powdered willow charcoal, 3 parts; oil of anise, 1 part. Of this powder a small teaspoonful may be taken an hour or a half-hour before a meal. When gastralgia is added to flatulent dyspepsia, he recommends the following: Syrup of peppermint, 250 parts; hydrochloric acid, 1 part; hydrochlorate of cocaine, 1-10 part; of which a small glass (such as those in which liquors are served) may be taken after a meal.—*Rev. Gén. de Clin. et de Thérap.—Md. Medical Journal.*

Dioscorine in Hepatic Colic.

DR. J. S. TODD (*Atlantic Medical and Surgical Journal*):

A judge of one of our highest courts was reduced to the verge of the grave with frequent attacks of that excruciating malady, hepatic colic. He had the best medical advice that Georgia could give; he vainly sought distant watering-places and other physicians; he was a wreck; gave up his business and lost hope. He was advised to take fluid ext. wild yam—dioscorine—by some one, and never after did he have an attack. I do not mean that one dose cured him, but that from the beginning of its use dated the end of his trouble. He is now one of the finest specimens of the physical man that you meet in our city of healthfulness. He imparted this information to me five years ago. My success with

the remedy in hepatic colic has been simply all that I expected or desired. It heightens the pain-relieving power of opium during the attacks and prevents their return when the remedy is continued. I will not worry you with details, but affirm that I have cured cases where parties had suffered for years with oft-repeated attacks.

The Amœbæ of Dysenteric Stools.

The *Lancet* says that Dr. O. UPLAVICI, from an extensive series of observations on dysenteric stools, has come to the conclusion that bacteria, though they are to be detected in large numbers and of many varieties in the evacuations of dysenteric patients, are nevertheless not the cause of the disease. He made out nineteen different micro-organisms, but not one of them was constant. It was otherwise, however, with amœbiform masses which were present in each of the sixty cases of dysentery, some of them of the acute and some of the chronic form, which he examined. These amœbæ have been described by various writers. The first observer to notice them appears to have been Loesh, of St. Petersburg, who mentions having found them in a case of dysentery in 1875, since which time Leuckart, Koch, Grassi, Cunningham, Normand, and more especially the Bohemian professor, Dr. Hlava, and Kartulis, of Alexandria, have paid considerable attention to these curious masses of protoplasm, both of the two last-named observers having recognized the causal relationship of these bodies to the disease. The observations of Professor Hlava were referred to in the *Lancet*. Dr. Kartulis found amœbæ in every case to the number of one hundred and fifty in which he examined the stools, and he entirely failed to find them in the stools of patients suffering from other diseases, such as typhoid fever and phthisis. He was unable to cause the amœbæ to propagate in any medium, and he injected them into the intestines of two pigs and a rabbit without result. Professor Loesh, however, had succeeded in getting them to multiply in one dog out of four into which he injected them. Dr. Uplavici has now prosecuted this line of research with better results. He injected fresh stools containing amœbæ into the rectums of seventeen dogs, and in two cases succeeded in producing dysentery with multiplication of amœbæ. In four cats, of six experimented on, positive results were obtained, but no effects were produced on eight rabbits, two fowls, and six guinea-pigs. In one case of dysentery, "giant amœbæ" when introduced into a cat, were found in the stools.

The Treatment of Dysentery.

During a service of thirty-five years in the British army in India, MCDOWELL had valuable experience with dysentery and its treatment, and declares that its horrors are vanishing since the following treatment has been employed: 1. An adult takes a dose of at least twenty to twenty-five grains of ipecacuanha. 2. The stomach is prepared to receive this dose by the patient's taken an hour beforehand, twenty drops of tincture of opium, and having a mustard plaster put over his stomach. The ipecacuanha is given in the form of large pills, taken in the evening before going to bed, never in the morning or in the course of the day. Subsequently nothing ought to be drank. This treatment is continued every evening, and in this way by the third morning, blood, mucus, and pain have generally disappeared. During the day bismuth is allowable.

Small doses of ipecac are only harmful; they were used for two hundred

years in India without removing the mortality.— *Allgemeine Med. Central-Zeitung.—Md. Medical Journal.*

DISEASES OF CIRCULATORY ORGANS.

The Treatment of Chronic Heart-Disease by Baths.

Dr. Gatthold Scholz, of Cudowa, in a lecture on the treatment of chronic heart disease, comes to the following conclusions: 1. The patient with heart disease in the choice of a bath, must be considered with regard to his constitutional anomalies, and have the diseases of other organs accurately examined and acted upon. 2. In the second place, the kind of heart disease is to be grasped and considered in reference to the method employed for cure. Every bath which acts favorably against a disease of the whole organism, will exercise a healing influence upon the heart. 3. All kinds of baths at a temperature which does not affect pulse and respiration ; natural spring water baths, sulphur baths, and also Carlstad baths, become indirectly heart remedies, through the removing of the evil influences which secretions and diseases of the organs exercise upon the heart. 4. Salt and chalybeate baths, and those rich in carbonic acid, act directly, in addition to their indirect action as heart remedies ; and it is to these, therefore, that the first place as cardiac remedies before all other baths is to be given. 5. These same baths are a tonic to the heart of the first rank, and surpass in strength and persistency the action of all pharmaceutical measures. 6. As trustworthy and strong adjuvants, though not of like power with those just mentioned, stand gymnastics, adapted to the heart of each individual case. These, when employed simultaneously, increase and expedite the action of the baths. 7. These baths and gymnastics, selected rationally, and with regard to individual requirements and employed after a method that can be constantly and accurately controlled, can never hurt even a severe case of heart disease; nay, the baths almost of themselves bring the patient to recovery or conduct him in some cases so far toward it that then, by methodical mountain climbing, and if necessary because of existing obesity, by diminution of food and drink, the perfection of recovery may be attempted, and possibly attained.—*Deutsche Medizinal-Zeitung.—Med. and Surgical Reporter.*

Green Hellebore in Diseases of the Heart.

Tschistowitsch (*Nowost. Therap.—Bull. Gén de Thérap.*) has used an aqueous extract and an infusion of the root *helleborus viridis* in eleven cases of various cardiac affections, in the stage of absence of compensation. In six cases, fifteen drops of a one per-cent. solution, every two hours, diminished the frequency and force of the heart-beats, increased the flow of urine, and caused a prompt subsidence of the symptoms due to lack of compensation. In two cases, amelioration was caused by the concomitant use of hellebore and an infusion of *adonis vernalis*, although each drug alone had failed to produce any effect.—*N. Y. Med. Jour.*

Cyanide of Zinc in Cardiac Affections.

According to the *Lancet*, Lashkevich has produced remarkable effects with this remedy in functional disorders of the heart, some cases being positively cured. Even in cases of organic heart disease it caused a decided amelioration, and had the advantage over other drugs of not deranging the digestive apparatus Dose, from 1–10 to 1–8 grain, three times a day.—*N. Y. Med. Jour.*

CONSTITUTIONAL DISEASES.

Fevers.

PROFESSOR FLINT, in an article read at the recent International Congress on this subject, said in conclusion :

1. Fever, especially in acute disease, is self-limited. 2. We are as yet unable to destroy directly the morbific organisms which give rise to the continued fevers ; all that we can for the present undertake is to modify their action and their powers of development. 3. The production of animal heat involves the oxidation of fat, resulting in the destruction of tissues and the formation of water. 4. As regards its relation to animal nutrition and the production of animal heat, water is to be counted as an excrementitious principle. 5. Fever, as observed in the so-called essential fevers, may be defined as a condition involving an excessive production of heat, with the production and discharge of an excessive amount of carbon, and the production and discharge of excessive amounts of water. 6. The more prominent symptoms of fever are, for the most part, secondary to the high temperature, the increased oxidation, etc. 7. The destruction of excessive heat by the application of external cold and the reduction of temperature by antipyretics, while they do not affect the cause of the fever, are beneficial in their influence to the extent that they modify the symptoms secondary to the pyrexia. 8. During a fever the severity of the symptoms is, in a measure, diminished by the introduction into the system of water. 9. Severity of the symptoms of a fever is in a measure increased by the withholding of water from the system. 10. Alimentation during a fever is mainly difficult on account of the derangement of the digestive organs, and this difficulty is to be met by the introduction of articles easily digested and readily assimilated. 11. In the introduction of the hydro-carbons important factors in the reduction of animal heat are attained ; alcohol is the best representative of these principles. 12. Precisely in so far as it produces oxidation in the body, alcohol furnishes matter which is consumed in the excessive production of heat in the body. 13. Alcohol diminishes rather than increases the production of pyrexia. 14. As the oxidation of alcohol necessitates the production of heat, it should be given in such quantity only as will meet the demand of the system for nutrition. The slightest degree of intoxication must be avoided. 15. The great object is to limit and reduce the pyrexia by direct and indirect means, and to place the system in the most favorable condition after the disease shall have run its course.

Lecture on the Treatment of Typhoid Fever.

PROF. D. HERMANN VON ZIEMSSEN, in an article published in September number of the *Journal American Medical Association*, says substantially on that subject :

Of late years Knorr's antipyrin has completely supplanted quinine as an antipyretic in my practice. In doses of 5 grams (best given in doses of 2, 2, and 1 hourly in the evening after 6 o'clock) it is a much more certain antipyretic, and is entirely free from undesirable after effects. It is only infrequently that vomiting is caused by it, the sweating is moderate, sleep usually undisturbed, and the euphoria in the morning is in the highest degree pleasant. The patients are perhaps somewhat apathetic, but have nothing to complain of. The temperature falls from 4° to 2°C., and remains low for a tolerably long time; certainly as long as with quinine. The rubeoloid exanthem

so frequently observed is of no significance. The prompt action on the rectum is also pleasant, in the same or somewhat larger doses. I have seen vomiting repeatedly after clysters of antipyrin, and others have observed the same effect. I have now used antipyrin in several hundred cases, and always with satisfaction, and can recommend it as a most trustworthy antipyretic.

Thallin is also a very good antipyretic, as I have shown by a series of cases but it seems that it cannot take the place of antipyrin. Under its use I have repeatedly observed the same shivering with the reascension of the temperature as with kairin. It is in favor of thallin that it acts in comparatively small doses. We use about one-fourth as much as the dose of antipyrin —.25—given 4 or 5 times.

Antifebrin, which we used since the notice of it from Kussmaul's clinic, and in comparison with antipyrin, is a valuable antipyretic. Our experiments with it have given extraordinarily favorable results. Its action in fever is very certain, the secondary effects are but slight and temporary, and its administration is followed by great euphoria and decided improvement in appetite. The drug has the very great advantage that it acts in such small doses (one-fifth or one-fourth the doze of antipyrin), and that it is so cheap.

Kairin and salicylate of soda are perhaps too antiquated to be considered antipyretics.

The treatment of individual symptoms, symptom excesses, plays an important part in the treatment of typhoid fever. It has already been said that so severe an infection of so great length and of such deleterious action on the nutrition of the animal cells must have a corresponding amount of organic disturbances in its course, each one of which may threaten life, and require skill on the part of the physician. What cell territories are affected by the destructive influences of the infection—the typhoid bacilli and their products—whether the brain, the kidneys, the parotid gland, the bronchial mucous membrane, the pulmonary tissue of the skin, depend upon factors which are only partly known to us. Of how great importance are proper innervation and circulation is shown by the good effects of baths and rubbing on the nutrition of the skin during typhoid fever.

The cerebral symptoms, headache, oppression, vertigo, generally call for the permanent use of ice-bladders. By far the greater number of patients, and in all of whom an antipyretic treatment gives a sensorium, find the effect of the ice-bladder very grateful, and call for them after they have seen their effect. But there are some patients, especially those of a nervous nature, to whom permanent cooling of the head is unpleasant. In such cases the subjective feelings of the patient must be taken into consideration.

Sleeplessness, restlessness and tossing at night are best controlled by a moderate dose of morphia; I usually begin with a dose of 1 centigram, and afterwards go up to 1.5 or 2 cgm. I have never seen such after effects as hyperæmia of the brain, increase of headache, etc. Most patients praise the peaceful rest which morphine gives them.

For very active delirium with bodily unrest, the condition which gave rise to the old term *febris nervosa versatilis*, luke-warm and warm baths, as recommended above, should be given in the evening and the early part of the night. If these do not produce the desired effect a hypodermatic injection of morphine should be given. In the severe and more torpid type of cerebral

troubles, which years ago was known as *febris nervosa stupida*, cold baths with short douches are best, and act better than morphine in giving a few hours of peaceful sleep.

Cardiac weakness is the phenomenon which is of most dangerous import, and demands the greatest attention on the part of the physician and attendants. This condition is always to be expected when a patient comes into an attack of typhoid fever with a weakened heart, as, for example, after an attack of endo-myo-pericarditis, in cases of valvular disease, dilatation of the ventricles, muscular weakness from strain, from intemperance, etc. The danger may be recognized early by the comparative high pulse rate at the beginning. As a rule the pulse then becomes smaller, and the temperature of the skin falls in consequence of the insufficient filling of the peripheral arteries. High blood temperature with cool extremities, very frequent, small and irregular pulse, pale or pale livid color of the skin, these symptoms show a most significant complex, and demand the most energetic use of stimulants and the most careful overlooking of the whole dietetic arrangement.

As regards drugs in this condition I give decided preference to camphor, because it can be given subcutaneously in almost unlimited quantities and as often as desired without the slightest local troubles. The action of subcutaneous injections of oleum camphoratum fortius (1 part of camphor to 5 of olive oil) from 2 to 5 syringefuls, is most satisfactory and continues for a considerable time. In a few threatening conditions 1 or 2 syringefuls may be injected every three hours, or it may also be given internally tolerably freely. Of wines I give champagne and of the concentrated alcoholic stimulants I give preference to cognac. Too much of a good thing is less harmful than too little in these cases. The quantity to be given in 24 hours must be graduated by the indications, and by the results of the first doses.

Bed sores may be almost absolutely prevented by a large water mattrass In cases in which they have developed before the use of the water mattrass, they may usually be brought to a stand still, and generally improved by the mattrass. For dressing them boracic acid salve, zinc and lead plaster mulls and white lead plaster should be used. Even with the best dressings salves and plasters cannot be held on the sacrum if the patient lies on the back. It is therefore best that the patient, even when he uses a water mattrass, should lie on his sides for a few hours each day; but during the height of the fever this cannot be done. It is possible during the period of remission, however, and in this stage healing takes place more rapidly. But, as a matter of fact, position, antiseptic dressings, etc., are of no value without a water mattrass; though when antipyretic treatment and a water mattrass are used from the beginning of the illness bed sores rarely occur.

Such affections of the skin as furuncles, circumscribed gangrene, etc., which are seen in cases of severe typhoid fever which are indifferently treated, rarely or never occur under antipyretic treatment; it is then in the power of the physician to prevent them. Baths not only cleanse the skin, but improve its circulation and nutrition, so that the functions of the outer skin, the blood supply of the cutis, and the secretions of the sebaceous glands, are much better than with the indifferent treatment of typhoid fever.

In very extensive intestinal affection in the course of typhoid diarrhea and meteorism are often excessive. Faulty diet and frequent use of opium and tannin, and the like, are chiefly respon-

sible for these conditions. Do not underrate the danger of extensive meteorism. Aside from the stretching and the irritation of the nerves of the intestinal wall, the secondary effects upon the lungs and heart may cause serious trouble. To dissipate this condition one or two ice-bladders may be placed on the abdomen, or Priessnitz's pack may be used on the abdomen. If this be not sufficient two doses of calomel, of 0.3 each, as recommended by Friedreich, often have the desired effect. Naphthalin, and turpentine clysters (a teaspoonful of spirits of turpentine) are also to be recommended. Massage of the abdomen has been recommended, but there is danger of its causing perforation of the intestine, especially in the hands of a layman.

Diarrhea should, as a rule, not be treated when it is not too frequent ; that is, when there are not more than 4 or 5 stools in 24 hours. If treatment seem necessary small clysters of opium paste (decoc. amyl. 30 grams, tinct. thebaic. gts. xx) may be used. The best is the thin clyster made in the house, and injected after the addition of tincture of opium. These may be applied, when necessary, once or twice daily, and not only give rest to the intestine, but act well on the general feelings of the patient by dissipating the uneasy sensations in the abdomen.

Intestinal hemorrhage is a very annoying, and prognostically a grave incident, though the mortality in my cases has not been very large: in the last 10 years I have lost only 25 per cent. of my cases that had intestinal hemorrhage, while Liebermeister lost 38.6 per cent., and Grisinger lost 31.2 per cent. Immediately upon the beginning of intestinal hemorrhage every kind of food, all medicine, the baths, and every movement of the body are discontinued, and two ice-bladders placed over the abdomen. Thirst is quenched only with small bits of ice. As a styptic a solution of sclerotic acid (1 : 5, in water) is given subcutaneously, a syringeful every half-hour. The injection burns, but if properly dissipated by rubbing does not cause an abscess, while the extract secalis cornuti (German Phar., 2d edition) not infrequently does. In very profuse hemorrhage, threatening life, I use enemata of ice-water, the influence of which on the intestinal ulcer is not only of a direct but also of a reflex nature.

As regards the use of styptics, such as acetate of lead, which many authors advise (in doses of 0.2 gram hourly at first, then every 2 hours, and later less often, Weil), I have had no experience. I have always been afraid of exciting peristaltic action, and on that account have avoided the giving of any and all medicine by the mouth. It is possible that I am wrong, however. The recommendation of acetate of lead by many authors is certainly not without reason. At all events, I recommend that the diet for several days should consist of absolutely nothing, until the immediate danger is past, and there is less fear of a return of the hemorrhage. When the hemorrhage is very profuse and death from cardiac paralysis is threatened, I would recommend injections of blood or salt water by the method described in a previous lecture. A year ago I made a blood injection on account of hemorrhage in a case of typhoid fever, and with a favorable result.

Bleeding during the period of late healing (fourth to sixth week) is more grave as regards prognosis than during the period of casting off the scab (in the second or third week), because it is in this case almost always due to delayed healing of the ulcer and a scorbutic condition of the walls of the ulcer, in

which the bleeding is very gradual but lasts a long time. It is important to know this, inasmuch as it renders the prognosis much more grave, and calls for very energetic treatment. In such cases acetate of lead and other methods come into use.

Perforation of the intestine is the gravest accident in typhoid fever. The prognosis is almost absolutely fatal. Some cases of recovery have been observed, as by Leibermeister. Two years ago, in my clinic, there was a case of indisputable perforation, which was sacculated. The air which entered the peritoneal sac was withdrawn by means of a trocar, and the sac was healed up, without its being necessary to open the sacculated perforation opening. In case of perforation you cannot do better than to give opium *per os* and *per anum* in tolerably large doses continually, as in developing peritonitis the rapid absorption of opium is not very certain ; injections of morphia may also be given. One or two ice-bladders should be placed over the abdomen, no food whatever should be given, thirst should be quenched by small pieces of ice, and every movement of the body should be avoided. Should the most favorable termination (sacculation of the perforation) occur, the sacculation should be opened and treated antiseptically, as in a case of perforation of the intestine (of unknown origin) recently reported by E. Wagner, which terminated favorably. Puncture of the abdomen with a thin trocar to reduce tension in the peritoneal cavity is scarcely ever of more than temporary benefit.

Increasing Doses of Drugs.

Says GINGEOT, active drugs are often toxic substances, the hurtful qualities of which are modified by suitable dosage. In considering the question of the employment of medicinal agents, it is necessary at once to note that a whole category of drugs never establish "tolerance;" they belong to the class of drugs the action of which is purely or principally chemical, such as the acids. On the other hand, the toxic dose of drugs which act by modifying the vital properties of tissues or organs, particularly of the nervous system, varies according to whether the dose is given at once or has been gradually reached. This being the case, it is easy to understand that certain drugs, if used for a length of time without any increase in the dose, finish by becoming positively inert. Medicine is of no importance, said Trousseau, medication is everything—an aphorism which he justified by quoting the fact that belladonna, useful in the treatment of epilepsy, is only so on condition of being given in properly increased doses. This rule may be extended to the therapeutics of various morbid conditions. In certain affections, such as neuralgia for example, the doses should be rapidly augmented, because the malady is of short duration, while in others the increase should be gradual so as to allow of its being maintained over a long period of time. The principle in both cases is the same. There is a group of diseases in which it would seem, at first sight, that this principle is inapplicable. Take, for instance, the case of a patient who is taking digitalis for functional derangement of the heart, dependent or not on organic lesions. In such cases not only should the dose not be increased, but the treatment must be suspended from time to time even in the absence of symptoms of intolerance. The contradiction is only apparent, however. The reason for acting thus with digitalis is because digitalis is eminently a

cumulative drug, and consequently, by giving every day the same dose, in reality the dose, measured by its effects, is being daily increased.—*London Med. Journal.—Md. Medical Journal.*

Salol in Acute Articular Rheumatism.

Dr. Bielschowsky has employed salol in twenty-seven cases of acute rheumatism. The remedy was given in capsules in five gramme (3 j. gr. xv) doses daily. Smaller doses—two to three grammes (gr. xxx—xlv)—were given in the after treatment to remove any slight pains that might remain. Of the twenty-seven cases, nineteen were promptly and completely cured; in two cases salol had only a slight influence, and salicylate of sodium had to be resorted to. The other six cases passed into the chronic form in spite of the administration of both remedies. Of the nineteen cured cases, fourteen could be considered as severe, partly on account of the high fever and partly on account of the number of joints that were affected. In eight cases relapses occurred, which always yielded readily to salol given in smaller doses than in the first attack. On an average, it took from four to eight days before all the morbid phemomena disappeared. In one case the disease resisted the remedy for ten days, but in the majority of cases every trace of the affection vanished in three days. In four patients slight cardiac disturbances occurred, which, however, on the discharge of the patients were no longer to be detected. Three patients had mitral affections, the result of prior attacks; these were not rendered worse by the fresh attack. It is beyond a doubt that salol is a specific in acute rheumatism in the same sense as salicylic acid, antipyrine, and antifebrine. But it has the advantage over these in that its employment is entirely free from untoward effects. One patient had slight noises in the ears, and another had eructations for a time. Beyond these not a single unpleasant symptom was observed. Exanthems and perspiration were never noticed. It was particularly to be remarked that gastric and intestinal disturbances were not noted in a single instance; the patients ate and enjoyed the usual hospital fare.

Dr. Siegfried Rosenberg has employed salol as an antirheumatic in the Berlin Jewish Hospital. On the whole, the drug was prompt in its effects, so that in from twenty-four to forty-eight hours the fever abated and the pains in the joints were decidedly less. The longest period it took for these symptoms to disappear entirely was five days, and only in one very severe case were no effects observed after ten days. In this case salicylate of sodium gave prompt relief within twelve hours. The doses given corresponded with those stated above. The author gained the impression that relapses were more common than after the use of salicylate of sodium. He thinks it has no power to prevent complications. In all the cases carbolic acid discoloration of the urine was observed. Noises in the ears, perspiration, nausea, and vomiting were noted, but continued disturbances of digestion were never seen, as after the employment of salicylate of sodium. In two cases an aversion to the drug was experienced after a short period, so that it had to be discarded. One advantage salol always has over the salicylates is the absence of any irritation to the gastric mucous membrane, inasmuch as salol is insoluble in the gastric juice, and only becomes soluble when it passes into the intestines where it meets with the pancreatic juice, which splits it up into salicylic acid and phenol.

Dr. Otto Seifert, on the recommenda-

tion of Georgi, has used a mouth gargle of salol in various ulcerative processes in the mouth, with very good results. He employed an alcoholic solution—6 to 100 grammes (ʒ jss.– ℥ iijss.) —of which he ordered a teaspoonful in a glassful of warm water to be used freely as a gargle. He did not obtain so good results with the drug in the form of powder.—*N. Y. Medical Journal.*

Therapeutic Application of Conium.

Conium is one of the few drugs which seem to have retained their reputation from the time of the Greeks up to the present. It has probably rivalled the majority of drugs in the mutations of professional favor which it has enjoyed. This has been due in great measure to the varying quality of the preparation of the drug used, and this influence, even yet tinctures medical judgment.

The drug clearly has two actions, a peripheral sensory action and a central motor action.

I have found it to have decided anodyne properties if mixed with wool fat or lard, and used by inunction in cases of neuralgia.

It will be found to relieve both the pain and the vesical irritability of cystitis, and is best applied by the wool fat ointment (one dram to the ounce), being rubbed in between the symphisis pubis and the anus. It has removed the neuralgic pains which often accompany pregnancy if locally applied in the manner already described. The pains of rectal and utero-vaginal cancer have often been palliated by local applications of the drug.

The fulgurant pains of locomotor ataxia, of chronical coholism, and of sciatica, as well as those occurring in chronic rheumatism and chronic phthisis are often remarkably benefited by conium.

In acute articular rheumatism it has both relieved the pain and seemed to exert an alterative action on the disease.

Pruritus ani, if not due to rectal tumors, is often quickly relieved by it, even if fistulæ be present.

It is, however, as a motor sedative that I have found it of most value. Wherever there is motor agitation conium is indicated. In the typhoid-like condition which often results from mental over work, and is attended with insomnia, exaggerated nervousness and agitated delirium, conium often acts like a charm in securing slumber. It does not do this directly, but acts by removing the motor agitation which prevents the patient from sleeping. The drug should be given in ten-minim doses of fluid extract of the unripe fruit. These may be given, well watched, every half-hour till slumber occurs. The preparation should always have the powerful mouse-like odor of conium, else it is worthless.

In epilepsy, in hysteria and in most convulsive disorders, it will be found of decided value, especially since it can be given without fear of producing a habit. It is of decided value in acute mania, and, while it may apparently cause the disappearance of delusions and seemingly possess a hypnotic action, both these actions are due to its removing the motor excitability, which is at once the source of the delusive ideas and the cause of the patient's insomnia. While conium has no direct hypnotic influence itself, it promotes the hynotic action of other drugs, by removing the motor excitement which interferes with slumber.

In my experience, a combination which answers as an admirable hypnotic in cases where chloral hydrate and hyoscyamus are indicated is as follows :

℞. Ex. fl. conium, ex. fl. hyoscyamus, of each, m. vii ; chloral hydrate,

gr. x; water enough to make half an ounce. This is to be taken at a dose.

Conium, as might have been anticipated, has been found of value in certain respiratory troubles. In three-minim doses, it sometimes acts well in cases in which irritation of the tracheo-bronchial membrane is the most marked feature, and can often be combined with advantage with expectorants. It has been found to aid the resolvent action of the iodides, and may be advantageously combined with these in the treatment of syphilitic nodes. The drug certainly merits further pharmacological examination, and as certainly some means should be devised of standardizing its preparations.—*Med. Standard.*

Milk of Swill-fed Cows.

In *Science* there is an interesting series of letters in regard to the wholesomeness or unwholesomeness of milk obtained from cows which have been fed on what is known as "distillery swill."

One of the most moderate, and probably most valuable letters, so far published, is from Professor W. H. BREWER, of Yale College.

Professor Brewer says: I have a decided opinion that swill-milk is unwholesome; but this opinion is founded on general facts rather than on specific proof.

The following are among the facts inducing this belief:

1. That the health of cows affects the wholesomeness of their milk is proven beyond any doubt; and the health of cows fed largely or wholly on distillery swill, is poor, as is abundantly shown by their general condition and by their high mortality.

2. It is well enough known that the food of cows affects their milk, and that their chief food largely determines its character. No one claims that distillery swill is the normal food of cows, or is wholesome food when fed in relatively large quantities.

3. Swill-milk undergoing spontaneous decomposition behaves differently from normal milk; it is usually acid when drawn, while normal milk is alkaline; it behaves differently in the processes for the manufacture of butter and cheese (and therefore probably also under the digestive process), so differently that creameries and cheese factories refuse it. This is universal so far as I know anything about them.

4. Milk readily absorbs infections, and numerous epidemics of disease have been traced to this source. It also absorbs odors, and swill-milk stables are proverbially foul and stinking. These facts make me believe that swill-milk is unwholesome. I have never found any facts pointing in the opposite direction. Some are negative; others point in this direction.—*Maryland Medical Journal.*

Closure of the Lids after Death.

According to M. VELADE, who has been collecting statistics on this and similar cadaveric phenomena, from 7 to 12 per cent. of cadavers are found with the lids closed a few hours after death; 15 per cent. have them widely open or staring, and 66 per cent., or fully two-thirds, have the pupils more or less open. Of those whose eyes are partly open at the instant of death, about one-half remain in *statu quo*, while the balance shut spontaneously, more or less closely. Whatever change may occur, takes place usually within four hours after the instant of death. After that period no alteration has been noted. Age, sex, and cause of death, do not seem to enter as factors in this condition, but figures would seem to indicate that fat persons and those perishing of

asphyxia have a marked tendency to die with closed eye-lids, while lean and anæmic individuals have the contrary tendency. When the eyes close spontaneously in death the cadaver has the appearance of one asleep, while in those cases where the lids have been closed by the hands of others after death, the lids have a blanched appearance and generally show the marks of the fingers used in closing them.—*St. Louis Medical and Surgical Journal.*

Hypodermic Solution of Quinine.

Where it is necessary to administer quinine subcutaneously, the following formula is recommended by Dr. S. BURT, as being as little irritating as possible: ℞. Quinine bisulphatis, ʒ j; acidi borici, gr. ij; morphinæ sulphatis gr. ¼; aquæ distillatæ, ʒ j. Sig.—For hypodermic use. One dram contains seven and a half grains of quinine.—*Medical and Surgical Reporter.*

Poisons in Common Use.

DR. RICHARD J. DUNGLISON, in an editorial published in the *Coll and Clin. Review*, gives the following interesting and instructive table:

Common Name.	*Chemical Name.*
YELLOW.	
King's yellow	Sulphide of arsenic.
Cadmium yellow	Sulphide of cadmium.
Turner's yellow	Oxychloride of lead.
Turpeth mineral	Basic sulphide of mercury.
Chrome yellow	Chromate of lead.
Chrome zinc	Chromate of zinc.
Citron yellow	Chromate of barium. Chromate of strontium.
Naples yellow	Oxides of lead and of antimony.
Yellow ochre	Clay and hydrated ferric oxide.
Mosaic gold	Sulphide of tin.
RED.	
Minium	Oxide of lead.
Vermilion	Sulphide of mercury.
Purple red	Basic chromate of mercury.
Iodine scarlet	Mercuric iodide.
Realgar	Sulphide of arsenic.
Red ochre, Colcothar	Ferric oxide.
GREEN.	
Chrome green	Chromic oxide.
Cobalt green (Rimmam)	Oxides of cobalt and of zinc.
Mountain green	Malachite green.
Scheele's green	Arsenite of copper.
Verdigris	Basic acetate of copper.
Emerald green	Acetate of arsenite of copper.
BLUE.	
Ultramarine	Silicate of alumina and soda with sulphide of sodium.
Mountain blue	Malachite blue.
Smalts	Silicate of cobalt and potassium.
Antwerp blue, Insoluble Prussian blue	Ferric ferro-cyanide.
Soluble Prussian blue	Ferro-potassio-ferro-cyanide.
Indigo	
BROWN.	
Manganese brown	Binoxide of manganese.
Vandyke brown	Ferric oxide.
Burned sienna, Burned umber	Clay colored with oxide of iron and manganese.
ORANGE.	
Chrome orange	Basic chromate of lead.

Treatment of Diphtheria Before and After the Larynx is Involved.

Within the past two years Dr. JOHN IRVING (*British Medical Journal*) has had a large experience of epidemic as well as endemic diphtheria. Satisfactory recovery in fifty or sixty instances—all the latter cases laryngeally uncomplicated when he was sent for—makes him regard iron and carbolic acid as not only prophylactic, but specific. At first he employed liq. ferri perchlor. with glyc. acid. carbolici, adding a little acid. posph. dil. for appearance' sake; but now he finds the following mixture to be equally efficacious, readily taken by children, for continuous use much better suited to the stomach, and more attractive to look at. For a child one year old, the prescription is. ℞. Liq. ferri dialysati, ʒ ss; glyc. acid. carbolici pur. (P. B.) ʒ ss; glycerini pur., ʒ ss; syrupi simplicis, ʒ iss. Misce bene, adde aquam ad. ʒ ij. Sig.—One teaspoonful to be given every two hours; continue eight days at least. This mixture is useless if the larynx be involved.

A few weeks ago he was summoned to a case of laryngeal diphtheria in a girl aged 3 years. Her parents objected to tracheotomy. Under treatment as above, the breathing became worse, and at the end of twenty-four hours he gave: ℞. Potassii iodidi, grs. v.; sol. nitroglycer. (1 per. c.), ♏iv.; vin. antimonialis, ♏lxviij; glyc. pur., ʒ ij; aq. ad., ℥ ij. M. Sig.—Teaspoonful every two hours.

Contrary to his prognosis, and contrary to his previous experience, the child gradually improved; the membrane loosened, and was coughed up in large pieces. She is now well and recovering her voice by the help of Easton's syrup.—*Medical and Surgical Reporter.*

The Administration of Opium.

There are few drugs more commonly prescribed than opium, and it is certain there is none more abused or more carelessly combined. Of its numerous officinal preparations it cannot be said that their individual actions are free from the disagreeable after-effects which characterize that of the pure drug. The problem is to get all the good effects of the drug, and yet to obviate the resulting headache, sickness, and loss of appetite caused by arrestment of the secretions of the alimentary canal. This, of course, refers to medium doses. Belladonna or atropine have for long been given in combination with opium, but in these respects the result has been mostly a failure, the reason being that while the actions of these drugs on the central nervous system are to a certain extent antagonistic, their actions on the alimentary secretions are much the same. For some time, Dr. A. G. AULD (*Lancet*) has given opium in combination with ether with good results, ether being one of the most powerful secretion stimulants we know. He generally prescribes equal quantities of tincture of opium and spirit of ether, and though not claiming for this a specific effect, thinks it a good and most useful mixture.—*Therapeutic Gazette.*

Antiseptic Action of Vinegar in Diphtheria.

ENGLEMANN (*Ctrlbl. f. klin. Med.*) speaks highly of local applications of vinegar, which he uses as a gargle diluted (one-half), in spray, or on a brush, one part to four of water. He regards vinegar as a more reliable germicide than a five-per cent. solution of carbolic acid, while it is cheaper and more agreeable as a gargle, being devoid of the irritating properties of carbolic acid.—*N. Y. Medical Journal.*

DISEASES OF CIRCULATORY ORGANS.

On the Treatment of Dropsies Due to Diseases of the Heart.

PROFESSOR DUJARDIN-BEAUMETZ, in a clinical lecture, published in *Medical and Surgical Reporter*, said:

The diuretic wines are in very general use, and one of the best known is that of Trousseau, which is given in the dose of from half a fluid ounce to two fluid ounces daily, in divided portions. The formula of Trousseau's diuretic wine is as follows: ℞. Dried digitalis leaves, 10 parts; squills, 5 parts; juniper berries, 50 parts; white wine, 750 parts. M. Macerate four days, add of acetate of potash, 15 parts. Filter. Dose, one to two tablespoonfuls three times a day.

Professor Gubler has given to the profession an oxymel called the diuretic oxymel of Beaujon, the formula of which is as follows: ℞. Tincture of digitalis; fluid ext. of ergot, āā 10 parts; gallic acid, 5 parts; bromide of potassium, 30 parts; syrup of wild cherry, 100 parts; vinegar of squills, 515 parts. M. Dose. A tablespoonful three times a day.

Lastly the syrup of five roots (a popular preparation of the French codex) has been happily modified by Bouchardat, by the introduction of acetate of potash (50 parts by weight per 1,000 of the syrup).*

You can then vary your treatment to avoid fatiguing the stomachs of your patients and turning them against the medicine, alternating the administration of one remedy with that of another, and then in a little while returning to milk, which increases diuresis, has a calmative local action, and combats irritation of the stomach when provoked by the digitalis or other diuretic agents employed.

Debreyne (*Bulletin de Thérapeutique*), who has given valuable therapeutic formulæ for diseases of the heart, was in the habit of associating digitalis with nitrate of potash in the following way: He prescribed tincture of digitalis in increasing doses, and insisted that the medicine should be faithfully given at stated hours during the day. Thus a dose of the tincture (and he would generally begin with four drops) was to be given morning, noon, and night; this dose was gradually increased till 20 drop doses were given three times a day (60 drops in the 24 hours). Each dose was taken in a glass of water in which twenty grains of nitre had previously been dissolved.

Such was Debreyne's method. On my part I advise you, if you adopt this way of associating these two diuretic agents, to give the digitalis, not in increasing, but in decreasing doses, beginning with the largest dose and diminishing the number of drops each day till you come down to the smallest dose. By following these directions you will be able to continue the administration of these diuretics longer than you otherwise could.

Just as it was in the case of diuretics, we find purgatives divided into several groups; thus, we have the mild purgatives, such as castor oil and salines, and others called drastics, which determine an enormous secretion from the digestive tube. As in the affections of the heart you desire an energetic and prolonged effect, an outpouring of serum, in fact, from the whole digestive tube in order to remove the serous effusion in the cellular tissue and great cavities, it is to these drastic purgatives that you should resort.

One of the most vaunted is scammony, which, given in milk in the dose of from 7 to 15grains, produces copious stools. Jalap possesses the same properties. and there is a preparation of jalap much in vogue, which may render you service in the treatment of dropsies. I refer to the *Eau-de-vie Allemande*, or compound tincture of jalap, which is given in the dose of one or two tablespoonfuls. The celebrated purgative "Médecine Leroy," which was once in so great favor, was nothing but the compound tincture of jalap sweetened with syrup of senna. Guillié has formulated an "evacuant syrup" similar to the tincture of jalap, in which nitre is one of the ingredients. You can make use of the electuary of Cruveilhier, the good effects of which you have seen in my service.

Ordinarily I make use of the following mixture, which has always given me excellent results: ℞. Tincture jalap co., syr. senna, syr. buckthorn, āā f ℥ j. M. Dose, one to three tablespoonfuls.

Some patients object to taking syrups and electuaries; in such cases you can give purgative pills, such as the pil. scammoniæ co., and Trousseau's pills, both powerful hydragogue cathartics.

*The syrup of five roots contains holly, asparagus, fennel, smallage and parsley.

When I spoke of diuretics I showed you that Debreyne was in the habit of combining digitalis with nitrate of potash; he completed the treatment by the administration of two wines; the *vinum major* and the *vinum minor*.

Of the *vinum major* he was in the habit of giving morning, noon and night, at first a tablespoonful, then two, then three tablespoonfuls. As for the *vinum minor* he would give it in larger doses, ordering as much as a wineglassful three times a day.

I have made trials of these wines of Debreyne, and have observed that when taken willingly by patients they give good results, but they soon produce an irritation of the digestive tube. This leads me to speak to you of the action of drastic purgatives on the economy.

You must have often been struck by the tolerance of the digestive tube in cardiac patients, who are able for months, and even (it may be) years, to take powerful cathartics without much injury. But along with these facts of observation, it must be confessed that in many cases these purgatives soon produce a violent irritation of the whole alimentary canal. These disadvantages were especially apparent, when, during the time of its popularity, physicians were in the habit of giving the "Médecine Leroy."

DISEASES OF RESPIRATORY ORGANS.

Recent Views as to the Pathology and Treatment of Tuberculosis of the Throat and Larynx.

LENNOX BROWNE, F. R. C. S. ED. (*N. Y. Medical Journal*):

PATHOLOGY.—*Lungs:* 1. The tuberculous process is initiated by the settlement of a specific bacillus on a suitable nidus.

2. The bacilli may be deposited at a portion of the lung—*e. g.*, the apex—ill supplied with blood and air, or in altered pulmonary tissue, the result of acute inflammation as at the base.

Larynx: 3. Bacilli may be carried into the general circulation by the lymphatic system, or, in the case of cavities, may be conveyed to the larynx by means of the sputa. The former, since it does not involve a previous breach of surface, is the most probable route in the commoner forms of laryngeal tuberculosis.

4. The tuberculous process is manifested in the larynx, as in the lungs, in two ways: first, as the result of anæmia, in which case the marginal and apical regions are primarily attacked; secondly, as the result of an inflammation frequently induced by functional abuse, in which case the vocal cords and ventricular bands are situations in which the disease is not infrequently first manifested.

5. Erosions, non-tuberculous in character, may appear in the larynx of a tuberculous patient; doubtless some of those that heal are of this nature.

6. Clinical evidence has long warranted the supposition that a laryngeal may precede a pulmonary tuberculosis. Recent facts have proved the truth of this hypothesis,

Fauces and Pharynx: 7. A nidus may be formed in this region by absorption of the contaminated fluids of pulmonary laryngeal, and oral secretion, and the bacilli be conveyed through the general system.

8. In the case of a primary faucial tuberculosis there is probably a previous breach of continuity.

9. Clinical evidence would show that there is a possibility of a primary faucial tuberculosis, but the fact has not yet been verified by post-mortem evidence.

Tonsils: 10. While faucial and pharyngeal tuberculoses are acutely painful, the tonsils may be attacked

without symptoms, provided the other portions are free from ulceration.

TREATMENT.—Considerations under this heading are limited to cases in which the disease, though well-established, is not advanced.

1. The first indication is, by climate, hygiene, and general measures, to place the patient in the most favorable position for resisting the baneful influence of the bacilli and rendering their life impossible; preference is given in early cases to sea voyages and mountain air over hot or moist climates.

2. *Inhalations* containing oxygenating elements and administered by oro-nasal inhalers are preferable to those of steam.

3. *Medicines* include, first, atropine as a probable alkaloidal antidote to symptoms of the septicæmic process indicating a ptomaine toxæmia; secondly, hypophosphites, of which that of calcium is preferred as most favorable to beneficial (calcareous) degeneration of the tubercle; thirdly, arsenic, which it is suggested may act as a specific in the tuberculous disease, though not to the same extent as mercury does in syphilis.

4. *Germicides* are of two classes—(*a*) those which may powerfully affect the general system, and (*b*) those of a more purely local character. Of the first may be mentioned bichloride of mercury and aniline applied locally to the larynx; both of these I condemn on the ground that, since it is much easier to destroy normal cells than the bacilli in the case of a tuberculous patient, the treatment may aggravate rather than relieve. Moreover, mecury internally administered is invariably harmful in a case of tuberculosis. The use of sulphureted hydrogen and carbonic-acid gas *per rectum* is a method of treatment which is still on its trial, and, so far as can be judged, it is more favorable in cases of chronic bronchitis than in tuberculosis. The microbicidal effect of the gas is very feeble.

Conclusions. — That, while throat symptoms may be greatly relieved even in cases of advanced pulmonary disease, there is seldom any true cure, but that each year there is a greater hope of such a happy result.

There can be no doubt that ulcers in the regions under consideration can be healed, and success in this direction is in proportion to their accessibility.

DIGESTIVE TRACT.

Diagnosis, Pathology and Treatment of Perforation of the Appendix Vermiformis.

DR. J. M'F. GASTON (*American Lancet*): The practical deductions from this inquiry are:

1. The primary disorder is dependent upon a local irritant, either mechanical, chemical, or vital, inducing ulceration and disintegration at some point of its walls.

2. The modification in the tissues of adjacent parts depends upon the presence of a toxic exudation from its cavity, that ultimately leads to degeneration of structure.

3. Extension of the degenerating process depends upon the permeation of the structures with fæcal matter, but may result from suppuration, or the automatic propagation of inflammation from one part to another.

4. Agglutination between the layers of peritonium may shut in purulent accumulations, and thus limit the inflammatory action to a circumscribed area, so as to assume the nature of an abscess in that locality.

5. General peritonitis may be accompanied with extensive adhesions of the adjacent serous membranes, and followed by vital prostration and collapse, calling for the knife.

6. Septicæmia may occur from absorption of septic matter independent of suppuration, and associated with a low form of fever, which ought to be treated by antiseptics and irrigation of the abdominal cavity by hot water.

7. When there are sufficient indications of perforation in the general symptoms, with pain and tenderness on pressure over the coccal region without signs of fluctuation, and exploratory puncture below the ileo-cæcal junction is warranted.

8. If there are reasonable grounds to believe that pus is present, or there is extravasation of fæcal matter, whether from the perforation of the cæcum or appendix, a free incision above Poupart's ligament should be carried down to those parts and drainage kept up afterwards.

9. In perforation of the appendix associated with general peritonitis, an incision in the linnea alba affords the best prospect of reaching all the parts involved, and should be accompanied by thorough cleansing of the abdominal cavity and especially the ileo-cæcal region.

10. The most efficient means of closing an opening in the cæcum is by Lambert's suture, while one in the appendix demands excision and ligature.

11. When perforation is suspected, washing out the abdomen by the use of a syringe and two tubes will assist in diagnosis and treatment.

12. An early operation with a doubtful diagnosis of perforation of the appendix lessens the liability for a confirmation of it by a necropsy, and hence no time should be lost in awaiting developments.

Diet in Biliary Lithiasis.

All fatty substances and the carbohydrates which may furnish cholesterine should be avoided. Peas especially should be forbidden, as they contain a fatty substance similar to cholesterine. The exclusive use of meat should also be avoided, and eggs should be rarely eaten. A mixed diet, composed of meat and green vegetables, is the best. Potatoes are well suitable; so is fruit, if not too sweet; while pastry is contraindicated. Meals should be taken often, in order to give frequent employment to the gall-bladder. Wine with mineral water is advantageous. The bowels should be kept open and plenty of exercise taken.—*Ibid.*—*London Med. Record.*

The Treatment of Habitual Constipation and of Biliousness by Podophyllin Resin Alone or in Combination with Belladonna and Strychnia.

Dr. Quinlan (*American Practitioner and News*):

Every practical physician is familiar with the frequent occurrence of habitual constipation in patients of the better-off classes, particularly females, and there are few ordinary therapeutical problems more difficult to cope with. This habitual constipation arises from three different factors prevailing in different degrees in different cases, viz., torpidity of liver, deficient peristaltic action of the intestines, and want of attention to the regularity of bowel action on the part of the patient, and this deficient action is too often combatted by the habitual use of saline cathartics of strengths varying from potent doses of magnesium sulphate to aperient waters of the Æsculap or Hunydi Janos type, which, although giving temporary relief, end by making matters worse. This constipation is occasionally varied by so-called "bilious attacks," with their accompaniments of headache, furred tongue, odor from the breath, and aversion to food; and recourse is generally had to mercury, either in the form of blue pill or of calomel, and this treatment,

although giving relief, is at best questionable, for it must always be remembered that mercury is a distinct blood impairer, and that troublesome salivation occasionally arises from mercurials given for aperient purposes only. Podophyllin, the-resin obtained by acting with alcohol upon the rhizome of podophyllinum peltatum, has long been known as "vegetable calomel," and if judiciously administered will accomplish with ease and safety everything that calomel can effect, either as a liver stimulant, or as a cholagogue cathartic. Moreover, it has none of the blood-impairing qualities of calomel, and it never salivates. The great impediment to its use hitherto has been its insolubility in water or in aqueous fluids, and hence we have, even in the present edition of the Pharmacopeia, only one preparation, viz., the tincture of podophyllin, containing one grain of the resin to each dram of proof spirit. This helps us but little, for if the tincture be added to water the resin at once precipitates ; it is always necessary to keep it in suspension by emulsifying it with gum acacia. If podophyllin by made into a draught in this manner some of the resin will be certain to remain in the bottle, and this is an important consideration with a dose ranging from a quarter of a grain to one grain. The only feasible alternative is to place the desired quantity of podophyllin in a pill ; but this is open to the objection that pills frequently pass through the intestinal canal very slightly changed, and hence it is that the difficulty and uncertainty attending the use of podophyllin have greatly reduced its use. A form of podophyllin capable of being administered in aqueous vehicles has long been a pharmaceutical *desideratum*, and this want has been fully met by Hockin's liquor podophyllin, each dram of which contains one quarter of a grain of the resin. One or two drams of this added to an ounce or two of water will produce a perfectly clear mixture, similar in color to pale sherry, but without the least precipitation of the resin, and we are thus enabled to introduce into the system the exact quantity of podophyllin desired. Comparing the therapeutical action of this drug with those of calomel and of mercuric chloride, it may be observed that minute doses of the higher chloride or sublimate, stimulate the liver and increase the flow of bile ; and if very small doses of calomel do the same, it is considered that this is owing to the conversion in the system of the mercurous into the mercuric chloride. Larger doses of the calomel diminish the secretion of bile, but cause a great effusion of secretion from the upper portion of the small intestine ; and this is the explanation of the great relief afforded by purgative doses of calomel in the so-called bilious attacks, which are really cases of cessation of secretion in the upper portion of the small intestine, a want which leads to the locking up in the blood of numerous excretions, the retention of which causes the distressing symptoms accompanying a bilious attack. It has been objected to this view that great quantities of bile are detected in cholagogue evacuations, but this is easily explained. In ordinary digestion much of the bile mixed with the intestinal contents is reabsorbed by the small intestine, and returns to the liver by the vena porta, to be again excreted by the liver ; and thus it is that the same bile is used over and over again, constituting what is known as the enteric biliary circulation. When a cholagogue purgative operates, the bile in the intestines is washed out too rapidly to allow of this reabsorption, and this is the reason

of the copious bilious evacuations. A cholagogue cathartic may be either three or four grains of calomel or one grain of podophyllin ; but with the former the secretion of bile is actually diminished, while with the latter it is increased, and both remedies cause a great secretion outflow from the upper portion of the small intestine. A very effective cholagogue draught can be made by combining half an ounce of the Hockin podophyllin liquor with ten minims of tincture of capsicum and enough compound decoction of aloes to make up two ounces. This will give unfailing relief in bilious attacks, but in severe ones it may have to be repeated after an interval of three or four hours.

A frequent cause of constipation is the simple torpidity of the liver, so common among persons of sedentary habits and occupations, and taking little or no exercise. In such cases immediate relief can be obtained by taking three times a day and shortly before meals, a dram of Hockin's liquor podophyllin combined with a bitter tonic, such as quassia, calumba, or gentian. The constipation disappears as if by magic, abdominal fullness is diminished, and cheerfulness of spirits is obtained. Natural evacuations occur once or twice a day; and if moderate exercise be superadded the cure becomes permanent.

So much for torpidity of the liver: but something must be done to encourage the peristaltic action by which the intestines propel their contents from the stomach toward the anus ; and for this purpose small doses of extract of belladonna are most efficacious. In addition to stimulating and strengthening peristaltic action, these small doses of belladonna cause a determination of blood to the gastric and intestinal mucous surfaces, highly favorable to the secretion of the gastric and other digestive juices. Hardly less active in stimulating peristaltic movements are minute doses of strychnine, which, besides that useful office, act as an excellent stomachic bitter tonic. There is no better way of combining these three remedies than Hockin's liquor podophyllin, belladonna, and strychnine, each dram of which contains one-quarter of a grain of the first, one-eighth of the second, and one-thirtieth of the third. One dram of this liquor taken three times a day in combination with a bitter tonic, will prove an effectual remedy to the habitual constipation arising from hepatic and intestinal torpidity.

Lastly, a word must be said as to the influence of habit in promoting regular intestinal action ; and there is no doubt that many of our physiological functions can be thus influenced. Persons engaged in ordinary diurnal occupations become drowsy and go to sleep at night, and if kept up till morning light find a difficulty in going to sleep except under great fatigue ; whereas those engaged all night in producing the morning papers are bright and wakeful at the ordinary bed hour, but go to sleep with ease in the morning when the rest of the world is getting up. So it is with the action of the bowels ; and there is no doubt that a steadily continued daily effort to evacuate them every morning after breakfast, will in the end bring on complete regularity of this great physiological function. Persons in charge of youth should inculcate this habit. It is too often the practice, from a feeling of mistaken delicacy, to ignore these bodily necessities, particularly in female schools ; but it is at last fortunately dawning upon parents and instructors that physical training is of co-ordinate importance with mental education, and much injury and suffering will thereby be prevented to the growing generation.

CONSTITUTIONAL DISEASES.

The Pupil in its Semeiological Aspects.

In an interesting paper by MACEWAN, in the *American Journal of the Medical Sciences*, for July, 1887, the following conclusions are presented :

(A) 1. When the function of the brain is in abeyance, the pupils are in a state of stabile mydriasis.

2. This may arise either from temporary suspension or from abolition of function.

3. Temporal suspension is illustrated by shock, and the effect of some poisons; while the abolition of function is exemplified by extensive laceration and compression of the brain.

(B) 4. When the function of the brain is interfered with by conditions usually included under the term "irritation," the pupils are in a state of myosis; sometimes labile, but generally stabile myosis.

5. This "irritation" or interruption of function may be seen during certain degrees of cerebral anæmia, produced experimentally, and not a pathological result; certain amounts of brain pressure, and certain stages of intracranial inflammation.

6. These are illustrated in persons who have suddenly lost a considerable quantity of blood (about a fifth of the whole); in the growth of intracranial tumors, and the formation of sanguinolent serous and purulent effusions, when the degree of pressure may be denominated as "medium," and at certain periods of meningitis and encephalitis.

(C) 7. The same pathological factors which cause myosis may also cause mydriasis, the degree in which these factors are present being the determining point between the former and the latter, and not *merely* the particular locus in the brain.

8. It is well illustrated by cases where the hemorrhage is repeated, and is finally pushed to syncope; in intracranial pressure, which is gradually increased until it becomes great, such as arises from tumors, blood clots, and inflammatory products.

(D) 9. When the function of one-half of the cerebrum is placed in abeyance by a superficial or cortical lesion, the pupil on the same side as the lesion is in a stabile mydriasis.

10. This is well illustrated in cases of intracranial sanguinolent effusion consequent on injury. (See list of cases.)

(E) 11. When the function of one-half of the cerebrum is interfered with by some source of cortical irritation, the pupil on the corresponding side to the lesion is in a state of myosis.

12. This is illustrated by traumatic and pathological lesions affecting the cortex of the cerebrum.

(F) 13. Hemorrhage into the pons Varolii when small, causes strongly contracted pupils; but when it is more extensive, involving the gray matter beneath the aqueduct of Sylvius, a state of stabile mydriasis is induced.

14. Effusions into the lateral ventricles when small, produce contraction of the pupils, but when the effusion is great stabile mydriasis ensues.

15. Inequality of the pupils indicate a unilateral lesion or lesions.

16. When the lesion is cortical and unilateral the pupillary manifestations are on the corresponding side. When the basal nerves are affected unilaterally the pupillary effect is manifested on the same side as the lesion. When the lesion is unilateral and affects the function of the white fibres of the cerebrum, the opposite pupil is generally affected. When the basal ganglia are implicated unilaterally the pupil is sometimes affected on the same side as the lesion.

In a case of cholesteatoma and in another of glioma of the right optic thalamus, dilatation of the left pupil was found. (*Ross*, vol. ii, p. 572.)

In lesions of the cerebral peduncles the pupil is affected on the same side as the lesion.

Lesions in the corpora quadrigemina affect both pupils, irritation causing contraction, destruction causing dilatation and immobility.

Section or destruction of one optic tract causes dilatation of the opposite pupil and blindness of the opposite eye.

17. Irritation of the cord, especially the cilio-spinal axis, produces dilatation of the pupils, while destruction of the cord causes contraction. These effects are generally seen in both pupils, though, experimentally at least, they may be confined to the same side as the lesion.

18. The pupils are affected in the same way by lesions of the sympathetic, though in unilateral lesions it is only the pupil on the same side as the lesion which is affected.

19. Speaking generally, when myosis is due to a cerebral cause, it indicates the earlier stages of various affections, when due to a spinal lesion it points to a most serious paralysis, often to the destruction of the part. When mydriasis arises from a cerebral lesion it is generally present in large amount; when due to a spinal affection it indicates irritation of the part.

Myosis occurs under the following conditions :

1. When a bright light acts upon the retina.

2. Accommodation for a near object.

3. Rotation of the eyeball inward.

4. Local irritation or painful affections of the eyeball.

5. Irritation of the oculomotor nerve.

6. Paralysis of sympathetic roots of lenticular ganglion or trunk of sympathetic in the neck. In paralysis of the fifth there is myosis and inflammation passing on to destruction of the eyeball.

7. Paralysis of the cilio-spinal region of spinal cord. All affections which destroy the cervical spinal marrow and intercept its conductibility produce congestion of the face and contraction of the pupils. In neurosis, which suspends or diminishes the tone of the sympathetic or spinal axis.

8. Encephalic congestion, such as : obstacle to return of blood in jugulars; venous congestion due to cardiac causes; active hyperæmia, plethora, fevers, pneumonia, hepatitis, etc.; when animal is suspended by the heels; in early stages of meningitis and encephalitis; in acute mania with marked activity of the cerebral circulation; in chronic mania pupils are variable, when contracted are said to indicate supervention of paralytic dementia.

9. During sleep; some believe this to be due to the congestion of the cerebral vessels and those of the iris (Mosso); others, to the inward rotation of the eyeball.

10. In early stages of cerebral tumor.

11. In small hemorrhages into the cerebellum. In irritation of the cerebellum, contraction of the pupil on same side as lesion ensues.

12. Electrical stimulation of the angular gyrus frequently causes contraction of the pupil.

13. During forced expiration, when the eye is at the same time passive. Also generally seen during the period of apnœa in Cheyne-Stokes respiration.

14. Convulsions arising from meningo-encephalitis are said to be accompanied by myosis, while in convulsions due to epilepsy and in epileptiform fits they are usually accompanied by mydriasis.

15. When the eye contracts on ac-

commodation to a near object, yet does not contract to light, this indicates a lesion situated between the corpora quadrigemina and oculomotorious. This affection is known as the Argyle-Robertson symptom. It is seen in locomotor ataxia, and occurs in the progressive paralysis of the insane.

16. During uræmic coma.

17. Myotics: physotigmine, nicotine, pilocarpine, morphine, muscarine.

Mydriasis occurs under the following conditions:

1. In darkness or in subdued light.

2. Accommodation for distant objects.

3. Rotation of the eyeball outward.

4. In forced movements discharged from the medulla; vomiting, swallowing, chewing, forced respiration.

5. Paralysis of the oculomotor (accompanied or not by immobility of eyeball, external strabismus, diplopia, etc.)

6. Destruction of the optic nerve; amaurosis. When unilateral, associated movements continue.

7. Irritation of sympathetic; powerful impressions on sensory nerves; strong moral emotions, mental pain, grief, fear; neuralgia of the fifth nerve.

8. Irritation of the spinal cord, especially cilio-spinal region.

9. Encephalic anæmia: In all cases where there is reflex contraction of the vessels of the head; when loss of blood from the body is excessive; obstruction of the carotid arteries; in thrombosis of brain sinuses; dilatation of mesenteric vessels when extreme; syncope, intense cold, rigors; dyscrasias of the blood, convalescence, cachectic conditions; asphyxia, epilepsy, in certain stages of these affections.

10. Pressure of cerebrum, when great in amount, as from hemorrhage, neoplasms, etc. In the last stages of meningo-encephalitis.

11. In cerebral softening. In acute dementia (œdema of cortex cerebri) observers state that the pupils are invariably dilated (Hutchinson).

12. In idiots the pupils are generally dilated.

13. During deep inspiration, generally in respiratory period of Cheyne-Stokes breathing.

14. Hemorrhage into centrum ovale and into cerebral peduncles.

15. Ferrier produced dilatation of opposite pupil by destructive lesion of the optic tract in the thalamus, indicative of rupture of the centripetal fibres to the irido-motor nucleus in the floor of the Sylvian aqueduct.

16. In hydrophobia there is mydriasis.

17. Mydriatics: atropine, homatropine, duboisine, daturine, hyoscyamine. Curare injected subcutaneously in animals (five to ten centigrammes) induces in one or two hours complete paralysis of the third nerve.

The effect on the pupil of local conditions of the eyeball.

1. Hyperæmia of the iris produces contraction of the pupil which darkness scarcely diminishes.

2. Presbyopia and hypermetropia cause contraction of the pupils in cases where continuous and excessive strain for near accommodation has been long continued and has produced asthenopia.

3. Pupillary atresia, consequent upon chronic irritation with posterior synechia, producing contraction of the pupil.

4. In synechia total dilatation is impossible, the iris dilating only where free, hence the pupil is irregular. If the synechia is annular, the pupil is both contracted and immobile.

5. In microria there is a congenital state of extreme contraction.

6. In glaucoma the pupil is dilated, contracting little or not all to the action of calabar bean.

7. In coloboma, both in the congenital form and after iridectomy, there are irregularity and immobility of the pupil.

8. In idiopathic mydriasis there is little contraction to the action of light or myotics.

9. In certain cases of amblyopia and amaurosis there is no dilatation of the pupil.

10. In hippus pupillæ there are alternate contraction and dilatation often accompanied by nystagmus.

11. Inequality of the pupils exists in some who have different degrees of refraction in the two eyes, one being emmetropic and the other myopic.—*Quarterly Compend. of Medical Science.*

Etiology and Differential Diagnosis of Typhoid and Typho-Malarial Fever.

DR. PIERSON CHAPMAN, being an advocate of the correctness of these terms as applied to separate classes of fevers, makes the following statements in an article published in the *Maryland Medical Journal.*

In order to bring into relief the broad distinction between the typhoid and malarial fevers when in their typical forms, the following comparative table has been prepared by Dr. E. M. Hume.

Typhoid.	***Malarial.***
CAUSE.	
Decomposing animal and vegetable matter.	Emanations from marshy, damp, low, or new soil, always vegetable never animal.
LOCALITY.	
Old soil may be high and dry and long settled.	New land, moist, low, and swampy.
CIRCUMSTANTIAL EVIDENCE.	
Epidemic of typhoid fever.	Prevalence of malarial disease.
AGE.	
Seldom after forty.	All ages.
PERIODICITY.	
Continues without intermissions or remissions.	There is either intermissions or remissions.
DURATION.	
Lasts 3 or 4 weeks, can not be interrupted.	Can be interrupted and cured in a few days
NERVOUS IMPLICATIONS.	
Great nervous disturbances and prostration; dull, heavy, throbbing, persistent frontal headache; twitching of muscles, tickling of the throat, ringing in the ears, deafness, mind stupid.	None.
DELIRIUM.	
Asthenic, not wild.	Sthenic.
EPISTAXIS.	
Frequent.	None.
LUNGS.	
Diffused bronchitis, with tough, tenacious sputa.	Congested when affected at all.
PULSE.	
From 70 to 140 beats per minute, small, irregular or double.	More frequently high, full, and bounding.
SKIN.	
Hot, even when moist, emits a peculiar musty odor, pathognomonic of this fever.	Dry and hot, odor acid and swampy.
THERMOMETER.	
Indicates an increase of temperature from morning to evening of about two deg., and a decrease of one deg., from night to morning, commences first day 98.05 deg., reaches its maximum of 104 deg. on the morning of the fourth day; from this time the evening temperature rises from 103 to 104 deg., morning one deg. lower.	Rises rapidly to 105 deg., or more first day or two, and falls suddenly; is not so uniform.
TONGUE.	
Protrudes tremblingly, is covered with a whitish yellow coat which disappears and is replaced by a dry pale, brown one, with red glazed tip and edges; teeth covered with dark brown sordes.	Coated all over with a heavy dark yellow coat, no sordes.
COMPLEXION.	
Pale, livid, muddy, cheeks flushed.	Sallow, eyes yellow.
URINE.	
Foaming, light color, free from sediment, frequently contains albumen, has typhoid odor like body.	Dark color, turbid, no albumen.

EXCRETIONS FROM BOWELS.	
Diarrhœa except in mildest cases, stools offensive, pea soup, bright yellow or brown, devoid of mucus but sometimes contains a white floculi.	Bowels costive dark, hard, dry, bilious stools.
ABDOMEN, SHAPE, ETC.	
Tympanitis occurs giving the shape to abdomen, etc., pressure over secum produces pain and gurgling sound, tenderness over spleen.	No tympanitis or tenderness of abdomen.
PAIN.	
Stomach not involved, no severe pain anywhere except where peritonitis occurs.	Gastric disturbance and vomiting of bile, pain in stomach and elsewhere very intense.
ERUPTIONS.	
Occur during second week, from one to twenty small rose colored pimples size of pins head, appear on abdomen, cheeks, or breast, do not extend to extremities, present no distinct elevations to the touch, disappearing upon pressure, but reappearing upon removal ; last about 3 days ; fade away and a fresh crop appears. This eruption is claimed to be peculiar to and absolutely diagnostic of typhoid fever. Later in the fever sudamina occurs.	Eruptions of different kinds sometimes occur, but are so different in shape, feel, duration, number, extent and place, that they need never be mistaken for the typhoid eruption.
MORTALITY.	
Great, average one in five.	Very slight, not one fatal case in 100.
LESIONS.	
Inflammation or ulceration of Peyer's solitary and Brunner's glands; perforation of bowels, with peritonitis and fatal hemorrhage, inflammation and enlargement of mesentery glands, and the spleen, which sometimes bursts; the brain, stomach, liver and lungs sometimes inflamed.	Hemorrhage from congestion of bowels rare. congestion of stomach, lungs, liver and spleen ; the two latter enlarged.

Then he goes on to say: We shall now consider the characters of a disease presenting in its different stages symptoms both of malarial and typhoid fever. The name remittent typhus was given it by Dr. D. Drake, who also spoke of it as "the typhoid stage of remittent or autumnal fever." He does not consider it a distinct disease, but a genuine hybrid of typhoid and remittent fever. He remarks that in many cases the stage of invasion is nearly the same length in both; both attack males more than females; and that when remittent terminates fatally, subsultus tendinum, a dry tongue and intestinal hemorrhage are sometimes present. He has, however, never seen a decided intermittent pass into typhoid ; nor well marked typhoid terminate in an intermittent."

Pending and during the war typho-malarial fever attracted much attention and its traits have been thus distinguished against simple typhoid.

Typhoid.	*Typho-Malarial.*
Typhoid occurs in all localities, most commonly in the North.	Typho-malarial only in miasmatic localities most commonly in the South.
Invasion gradual and without remission.	Often begins as a simple remittent or intermittent.
Daily exacerbations and remissions slight.	Decidedly marked.
Diarrhœa the rule.	Constipation the rule.
Tympanites common.	Tympanitis rare.
Abdominal tenderness considerable, epigastric and hepatic, tenderness slight.	Abdominal tenderness slight, epigastric and hepatic tenderness considerable.
Temperature comparatively low, delirium low and muttering.	Temperature high, especially on outset, delirium active.
Spleen not involved.	Tumefaction of spleen very marked.
Sordes on teeth the rule.	Sordes rare.
Peyer's glands always involved.	Rarely involved.
Rose eruption present.	Generally entirely absent.
Pigment deposits absent.	Pigment deposits in various tissues and organs very common.

Picrate of Ammonia in Malarial Fevers.

Dr. S. E. Fuller, of Brooklyn, N. Y., writes to the *Medical Record:* Having been for many years a sufferer from chronic malaria, and being at the time

afflicted with an unusually severe attack, for which I had taken the usual remedies without receiving any benefit, I at once procured some of "Merck's" picrate of ammonia, and began its use in half-grain doses (made into a pill with extract of gentian) three times a day. In three days time there was marked improvement in all my symptoms. Had no more chills, pain in head and back had left me, and I awoke in the morning without those terribly exhausted and irritable feelings which those who suffer from this disease so well know. This result encouraged me to make a trial of the drug in several cases of similar trouble in which I had been using quinine, etc. I prescribed it for six adults, of both sexes, and kept watch of the effect. In all but one case the same marked improvement speedily resulted. I now began to notice a peculiar, deep orange color in my urine, without any change in quantity, and a chemical analysis of it showed that except for the change in color it was normal. Upon inquiry I found that the urine of all the patients was of this same orange color. Having taken the medicine myself in doses as above mentioned for ten days, I decided to stop its use and watch for the disappearance of this color from the urine. To-day, May 24th, seven days since stopping the medicine, there is not the least improvement in the color of my urine, and the whites of my eyes, and the skin of my face generally, are the color of one mildly jaundiced. The same thing has occurred to all my patients who have taken the remedy for a week. One lady, to whom I gave the maximum dose, one and a half grains three times a day for eight days, is now deeply jaundiced, the color involving not only the whites of the eyes and the skin of her face, but also the skin of her neck and breast, from which, shading to a light color, it covers the rest of her body. In each case the tongue is clean, bowels not affected, and appetite good. I do not understand why the discoloration of the urine remains so long after stopping the medicine, or why it should cause discoloration of the skin at so late a day. —*Md. Medical Journal.*

Ammonium Picrate in the Neurotic Sequelæ of Malaria.

DR. C. H. HUGHES, in *Medical Standard*, says: Braconnet some years since reported excellent results from the use of potassium carbazotate (picrate) in malarial affections, and Dr. H. M. Clark has lately extolled ammonium picrate as a quinine substitute in the malignant malarial fevers of Asia and Africa.

Every remedy which promises therapeutic power as a quinine substitute is eagerly seized upon by the neurologist, because of the untoward effects of quinine and its constitutional intolerance by certain neurotic individuals.

In the malaria (which is an ever present factor to combat in the diseases of of the Mississippi Valley), ammonium picrate has proven, in the writer's hands, a sufficiently salutary remedy to justify it commendation. Nervous patients, who feel cold or drowsy part of every day, or every second or third day, or who are chilled by slight causes, and those who always feel tired and who give a history of antecedent malarial affection the previous spring or fall, are often markedly benefited by a grain or a grain and a half of ammonium picrate three or four times a day an hour after meals.

It is best given alone in pill or capsule form, but may be combined with ammonia muriate or capsicum. I have given it mixed in mucilage (it is not soluble in water) combined with compound hypophosphite syrup.

Ammonium picrate has neurotic tonic power which, in my opinion, is not due to its anti-periodic influence alone, but to its power over the vital nerve centres. I have in some instances seen brain and nerve-weary, and somewhat irritable, patients become more restful and tranquil under its use. It does not act rapidly like the opiates, bromides or chloral hydrate, and I have not given it in large doses.

I have given it after a few days of quinine in nervous diseases complicated by malaria, and have found that such a procedure often yields prompt results.

Intermittent Fever.

℞. Quin. dextro., ʒ i; pulv. capsici, grs. xii; pulv. ipecac, grs. ii; ex. tarax., q.s. M. Ft. caps. No. xii. Sig.—One t.i.d.

Jhambul. A Contribution to a Study of a New Therapeutical Agent.

Dr. W. H. Morse, *Maryland Medical Journal:*

Synonyms. — Jhambhul, Jhambool, Jamboo, Jhambre.

Medicinal Portion.—Both the bark and seeds have been used, but the peculiar virtues are more particularly resident in the seeds. The bark of the root is described as superior to that of the trunk, which latter is comparatively valueless. The unexpanded flowers are said to equal the seeds in its peculiar virtues.

Chemical Composition.—I have not as definite a report of analysis to present as a chemist wishes, but from the quantity at my hand, I am able to refer 1,000 parts of the pulverized seed to 280 of water, 45 of ash, 55 of resin, 325 of fatty matter, 170 of a tannin or tanninaceous substance, 100 (approximately) of fibre, and the remainder affording a greenish fixed oil, and sundry other principles, among which is a crystalline substance, tasteless, odorless, without reaction, and in the form of fine diverging fasciculi. This principle consists of carbon, hydrogen, and oxygen, and is soluble in alcohol and ether. It is indifferent in its effects on polarized light, as regards rotary power. It is notable and just to add that chlorophylle tints the reed to such an extent as to show marked chlorophylle bands spectroscopically. Its loss in the ash is but a matter of course.

Preparations.—The only recognized form is the powder, the dose of which is five grains three times a day. A fluid extract of the bark has been used, but may be set down as inert.

Synergists.—All of those agents used in the treatment of diabetes.

Physiological Action.—The immediate effect is that of an excitant of the vaso-motor functions of the spinal cord, and an exaltant of the reflex functions. From the vaso-motor centres of the medulla oblongata to the subsidiary centres, the action is mediate, extending to the vaso-motor ganglia of the entire body, provoking a general rise of blood pressure owing to a tensive contraction of the arterioles. This is more especially the case with the renal and mesenteric ganglia, the tension of the arterioles supplying the glomeruli of the kidneys being such as to almost occlude them. This influence amounts to something like over-excitation, for in eight to twelve hours the capillaries again dilate, the blood-pressure, however, remaining below the normal even from the initial dose.

Nausea is occasionally produced, but this effect is no doubt owing to cerebral disturbance. Increase of peristalsis seems to be the action on the intestines. The stimulation of the cardiac ganglia procures an increase of the motor power of the heart. The respiratory movements

are increased in number and depth. In over-doses the action is quite necessarily paralyzant to some degree.

Therapy.—It is as yet too early to enter far on the therapeutical actions of jhambul. In 1883 Dr. H. Banatvala called attention to it in the *Medical Record* as a native Indian remedy in chronic diabetes. No close attention was engaged from the profession in England to whom the notice was directed, though Lascelles-Scott presented a crude analysis, a little later. In March, of this year, Dr. G. C. Kingsbury communicated his experience with it to the *Bristol Medical Journal*, and attention to its merits was re-awakened in London. Meanwhile Hazard, Hazard & Co., of New York, have prepared and introduced the powder in the form of 5-grain powders and capsules, and within a few months it has proven remarkably and uniformly successful in this country, as previously and at present is the case in India, and as promises to be the case in Great Britain.

The action is three-fold. (1.) The excretion in urine is lessened in quantity. (2.) The specific gravity is lowered at once. (3.) The formation of sugar in the urine is arrested by a prevention of the conversion of starch. Among other minor actions may be enumerated a checking and control of the bulimia and abnormal thirst, a regain of the contributions to nutrition, and a permissible removal of the restrictions of diet. During treatment the patients are excitable, but sleep well, and gain strength rapidly.

In a word, uniformly successful results are obtained speedily and without compensation. Exceptions are noted in fat subjects, and where phthisis complicates. Although these classes of cases are decidedly ameliorated, it cannot be said that any have been cured. In all other classes a cure is the rule, the arrest of the changes in the nervous system which accompany or cause the disease being an early accomplished fact.

In enteritis, acute gastritis, and peritonitis, the results attending the use of jhambul are very gratifying, and I only regret that a limited experience prohibits the giving of a line of testimony of particular interest. To increase the action of the heart the indications from the use of jhambul are promising.

Laboratory Experiments.—(1.) Rabbit. Dose, 20 grains once in three hours. Cardiac action intense and rapid; death. (2.) Puppy. Same dose for two days. Total suppression of urine, continuing forty-two hours. Loss of appetite; no thirst.

Several chemical experiments as to the amount of starch converted into sugar with and without the presence of the powder, do but corroborate those of Lascelles-Scott, and need not be given.

Caution.—Disappointment in the use of the drug will not be experienced if the American preparation above indicated is used, The English fluid extract is useless, and other powders in the market are variable in action.

Dr. Kraske's Method of Treating Erysipelas.

Dr. Classen describes the treatment which was found to be so successful in a recent epidemic of erysipelas. A number of incisions were made into the affected part, so that one-half their length passed beyond the inflammatory region into the surrounding healthy skin. These were crossed very acutely at ½ cm.'s distance by another series of incisions, so that the points of crossing were close to the edge of the erysipelas. If a part of the trunk, as, for example, the mamma, was affected, the whole portion was encircled by radiating incisions, crossed very obliquely by others. If the disease attacked an extremity, it was sur-

rounded by a ring of incisions, because experience taught that if a bridge of intact skin were left between the cuts, the inflammation quickly crept along this, and spread extensively about the limb until it was limited by other and more carefully made incisions. The author thinks that although the treatment was applied in his own cases to superficial erysipelas, it is undoubtedly applicable to the deeper parts, the scarifications being then made into the subcutaneous tissue.—*Medical Chronicle.*

A Formula for Naphthalin in Pill Form.

BERNBECK has found that a pill covered with elastic collodion is especially useful in administering this drug. His formula is as follows :—℞ Naphthalini resublimat., 10 parts ; rad, althææ pulv., 5 parts ; mucil. gummi arab., q.s. Ut. fiant pilul. 100. Dry without heating, and cover with elastic collodion. Sig. Two or three pills three times daily.

The remedy is especially useful in gastro-intestinal catarrh.

The advantage of the collodion coating is found in the fact that it is dissolved in the intestine and not in the stomach, and that no unpleasant taste is experienced from gastric eructation. For the success of the collodion coating it is essential that the pills be carefully dried before its application.—*Deutsche-Amerikan. Apoth.-Zeit.—Therapeutic Gazette.*

The Dietetic Treatment of Obesity.

A contributor to the *Union Médicale*, credits M. DUJARDIN-BEAUMETZ with the following dietary for the reduction of obesity : Breakfast at 8 o'clock.—Two ounces of cold meat, an ounce of bread, eight ounces of weak tea without sugar. Luncheon at noon. Two ounces of bread, four ounces of meat or stew, or two eggs, four ounces of fresh vegetables, half an ounce of cheese, fruit *ad libitum.* Dinner at 7 o'clock.—No soup, two ounces of bread, four ounces of meat or stew, four ounces of fresh vegetables, salad, half an ounce of cheese, fruit *ad libitum.* In conjunction with this course, purgatives should be taken rather frequently, either mineral waters, pills, or powders, and the subject should take exercise in proportion to his strength, and employ massage.—*New York Medical Journal.*

On Injections of Yeast.

In the *Central. f. d. Med. Wiss.* FALK reports some experiments upon the intravenous and other injections of fresh beer yeast into rabbits and dogs. He finds that no special symptoms follow these injections, and attributes the symptoms of septicæmia obtained by Popoff in his experiments to bacteria in the materials used. Falk then made simultaneous injections into the belly, of cane sugar and yeast, and could find no sugar in the urine. Grape sugar gave the same result. It was possible, therefore, that the fermenting power of the yeast was excited in the living body, and it became especially interesting to test the action of the yeast in animals in whom diabetes had been artificially produced. Artificial glycosuria was in some cases produced by puncturing the floor of the fourth ventricle, in some by electrical stimulation of the central ends of the vagus in the neck, and in some by medicines ; the yeast having been previously injected. Setting aside several cases in which the experiments were unfortunate through early death of the animals, it was found that no glycosuria followed in two cases which had been punctured, and also in two cases in which there had been electrical stimulation of the ends of the vagus. In the same way, of the subcutaneous administration of amyl nitrite in rabbits, and

of orthonitrophenylpropionic acid in dogs, diabetes was not obtained, or but a trace of it.—*Med. and Surg. Reporter.*

DIGESTIVE TRACT.

Prevention of Chronic Constipation.

DR. BRANSFORD LEWIS (*St. Louis Medical and Surgical Journal*):

1. The surroundings must be hygienic —thorough ventilation, etc., must be secured, to promote the healthy performance of all the functions.

2. Habitual regularity in eating, sleeping, exercising and especially in attendance at the closet at a certain hour, whether there is inclination or not, must be cultivated.

3. The whole attention must be fixed upon the purpose of the visit; no reading of papers is to be indulged in.

4. Frequent bathing, cold morning baths preferred, with energetic rubbing of the surface, especial attention being given to the abdomen, is of material benefit. This may be varied with douches alternately of hot and cold water to the spine and abdomen.

5. The ingestion of a large quantity of water during the day will assist in maintaining the fluidity of the excreta and promote regularity in the bowel action. A pint of hot water taken before breakfast is a serviceable stimulant to the whole alimentary tract.

6. While dressing, practice forced respiration, repeatedly inspiring to the fullest capacity of the lungs. This assists peristalsis in urging forward the intestinal contents. Intermitting pressure and kneading of the abdomen conduce to the same end.

7. Constrained attitudes, such as that required in writing, causing continued pressure on the abdomen, have an obstructive influence.

8. The purgative habit should be looked upon with a fear akin to that of morphine. Stimulation by such means is necessarily followed by relaxation, calling for subsequent increase in the stimulus.

9. Mastication of food digested by the intestine must be perfect—which does not allow of hurried eating. The theory that thorough insalivation of the stomach-digested elements (meats), by too freely incorporating an alkali prevents or retards the action of the gastric juice, would indicate a certain amount of "bolting" of this portion of the diet, after careful division with knife and fork.

10. The loss of too much fluid from the system by profuse and long continued perspiration, should be guarded against.

11. The digestive function should be carefully kept in order by a dietary, found by observation to be best adapted to the individual; that dietary is to be based also on common sense, and a diagnosis of the location of the indigestion, *i. e.* whether in the stomach or the intestines.

12. Tea contains an astringent and should, therefore, be avoided.

13. A quantity of fluid—not ice-water, which chills the stomach and greatly retards the digestive process, sufficient to assist in liquefying the food, say a glassful or two, should be taken with meals

14. Eat vegetables and fruits which allow of sufficient residue after their digestion to increase the peristaltic movement of the bowel; such as lettuce, spinach, peas, asparagus, fresh fruits, raisins, prunes, etc.

15. Brown bread, aerated bread, etc., are preferable to white bread. Hot bread must be strictly prohibited. Butter (if there is no indigestion,) oatmeal and cracked wheat are beneficial.

16. Meats may be taken only in moderation, excepting pork and veal, which must be excluded from the diet.

17. Never allow the sensitiveness of the rectal mucous membrane to become blunted by prolonged retention of its contents; go when the inclination is felt.

18. Do not strain violently with the abdominal muscles; educate the muscles of the lower bowel to the performance of extrusion. Attention to this point will be followed by very gratifying results, as great perfection may be arrived at in the respect desired. Probably there is no commoner cause of hæmorrhoids than neglect of this rule.

19. Do not be in too great a hurry; the passage of a part, may allow the descent of the remainder, of the excretion. The proper performance of defæcation is as essential to the maintenance of health as is that of eating, sleeping, etc.

20. In cases of relaxed abdomen, due to old age or repeated pregnancies, an abdominial band is serviceable.

21. The use of the Faradic current is frequently efficient when other means have failed. General faradization, and direct application of the sponge with energetic kneading of the abdomen should both be tried.

22. Only when necessity decrees, the bowels having refused to act after all the above rules have been adhered to, may resort be had to a small enema of cold water, or to a soap suppository, the size of a pigeon's egg.

Dyspepsia.

Loss of Appetite.—When this exists there is generally more or less atony of the gastric mucous membrane, in which condition the vegetable bitters are useful: ℞. Pulv. cascarillæ, ʒ j; pulv. rad. rhei., gr. xv; pul. columbæ, ʒ ss. M. ft. pil No. L. Sig.—5 three times a day. (Ewald.)

Not infrequently anaromatic is happily combined with the bitter, inasmuch as it is more stimulating though also more evanescent in its action: ℞. Tinct. cinnam., ♏xxxvi; pulv. rad. columbæ, gr. cviij. M. Div. in pulv. No. xii. (Ewald.)

Sometimes it is best to guard against the irritant properties of bitter drugs. This may be done by combining a small quantity of morphia with the prescription. The following formula is also useful when loss of appetite is combined with a tendency to cramps: ℞. Morph. acetat., gr. iss; tr. gentianæ, tr. columbæ, tr. quassiæ, tr. cort. querc., āā f ʒ vj. M. Sig.—Teaspoonful several times a day. (Graves.)

Excessive Acidity.—As stated in the previous number of the *Reporter*, this may be relieved by acids before meals or alkalies after meals (Ringer). The following formula will be found of service: ℞. Potassii bicarb., gr. xc; cort. aurantii, gr. xlv. M. Div. in pulv. No. x. Take one powder in sweetened water three times a day.

℞. Sodii nitratis, ʒ ij; bismuthi subnit, gr. xv; gummatis arab. ℥ ss; aq. destil, f ℥ vij. ʒ vij. M. Sig.—Teaspoonful every four hours. (Ewald.)

If constipation, also exists, the following may be used: ℞. Inf. rad. rhei, f ℥ iss. In this cold dissolve: Sodii bicarb, gr. cl; syr. aurantii cort, f ʒ vj. M. Teaspoonful twice daily. (Ewald.)

Or: ℞. Calcii carb. præcip, gr. cxxxv; magnesii carb, gr. xc; sem. myristicæ pulv, gr. vij; sacch. alb, ʒ iss; gummatis arab, gr. xlv; aq. destil., q. s. Fiant trochees No. xx. Part of one may be taken several times a day. (Ewald.)

Or: ℞. Inf. rad. rhei, f ℥ iv–f ʒ vss; sodii bicarb., gr. lxxv; ol. menth pip. ♏ iv; syr. aurantii cort, f ʒ vj. M. Sig.—Tablespoonful every two hours when there is gastric and intestinal catarrh. (Ewald.)

Flatulence.—When this is due to fermentation, creosote and carbolic acid are useful: ℞. Creosoti, gr. iij; aq. flor. aurant., f ʒ j–f ʒ vij; tr. ferri chl., ætheris, syr. aurantii cort, āā f ʒ ss. M. Sig.—Teaspoonful every two hours. (Ewald.)

℞. Acid carbol., gr. xv; pulv. rad. rhei, gr. lxxv; mucil. gummatis arab. q. s. M. Div. in pil. no L. Sig.—One three times a day. (Ewald.)

When flatulence is the result of insufficient gastric juice: ℞. Acid hydrochlor., ♏ lxxv; aq. menth. pip. f ʒ iss–f ʒ ss; syr. aurant. cort, f ʒ vj. M. Sig.—One-half teaspoonful in water after each meal.

℞. Acid. hydrochlor., f ʒ v; aq. destil, syr. zingib. āā, f ʒ ss. M. Sig.—Ten drops in water after meals. (Ewald.)

Charcoal is often valuable in flatulence associated with acidity: ℞. Pulv. carb. lig., ʒ vj; lig. quassiæ, magnesiæ carb., āā ʒ j. M. Teaspoonful several times daily. (Ewald.)

℞. Pulv. carb. lig., sodii bicarb., olæosacch. menth. pip., āā gr. viiss. M. Ft. pulv. Take ½ one hour after every meal. (Ewald.)

℞. Pulv. carb, lig., gr.vi; acid salicyl., gr. iss. Put in capsules No. x. Take ½ hour after meals. (Ewald.)

Slowness of Digestion.—In a large number of cases of dyspepsia, food after entering the stomach seems to the patient to lie there like a dead weight. Sometimes after remaining a while in the stomach it is regurgitated in a nearly unaltered condition; or in other cases digestion proceeds so slowly that gases form, resulting in flatulence, eructations and colicky pains. It is in these cases that pepsin and, if the dyspepsia be intestinal, pancreatin, are of great value. A number of useful formula will be here appended: ℞. Pepsin. sacch., gr. lxxv; strychninæ, gr. 1–13; sacch. lactis, gr. cl. M. Div. in pulv. No. x. Sig.—No. i.

℞. Acid. hydrochlor. ♏ cl; aquæ menth pip., aquæ destil, āā f ʒ j. f ʒ ivss. M. Sig.—No. ii. Dissolve one of the powders in a glass of water and place in it a teaspoonful of No. ii. To be taken ½ hour after meals. (Ewald.)

℞. Pepsin, gr. xxx; acid. salicyl, gr. viiss; glycerini, f ʒ j. f ʒ ivss; tinct. calami., ♏ cl. Sig.—Teaspoonful dose. (Ewald.)

℞. Pepsin, gr. cl; pancreatin, gr. cxiv; sacch. lactis, ʒ j ʒ ivss; ext. malti, gr. lxxv; acid. lacti, gr. xxxviij; acid. hydrochlor. dil. ♏ cl; glycerini, ʒ v; tragacanth, q. s. M. Div. in ten pill masses. (Lactopepsin.) (Ewald.)

℞. Pepsin, gr. lxxv; acid hydrochlor., ♏ viiss. Rub together exactly; ext. gentianæ, q. s. M. Ft. pil. No. L. One pill several times a day. (Ewald.)

℞. Pepsin, gr. xxxviij; acid lactic, gr. iij; amyli, gr. xl. M. Ft. pul. No. v. To be taken an hour after meals when there is too little acid in the stomach. (Corvisart.)

℞. Pepsin, gr. lxxv; morph. hydrochlor., gr. 1–6; amyli, gr, xc. M. Div. in pulv. No. xv. In increased irritability of the gastric mucous membrane. (Corvisart.)

The following formula is also useful, though without pepsin, in the so-called atonic dyspepsias: ℞. Inf. rad. rhei, f ʒ iv–f ʒ vss; elixir aurantii, ♏ lxxv; syrupi, ♏ iv; sp. æth. nit., ♏ viiss. M. Sig.—Tablespoonful every half hour. (Ewald.)—*Med. and Surg. Reporter.*

Treatment of Gall-Stones.

Dr. Samuel Morales Pereira, of Puebla, Mexico, gives an account in a Mexican medical journal of a case of "biliary calculus diathesis," with enlargement of the gall-bladder, in which he

found a decoction of a well-known fern, *Asplenium ceterach* (or *doradilla*, as it is called in Spanish), of great value. The patient was a gentleman of good general constitution, who had suffered for a long time from pain of a more or less periodical character in the hepatic region. His digestion and his temper were considerably affected. He had applied to a number of medical men, but had never derived any benefit from their treatment. On examination the right hypochondrium was found to measure six centimetres more than the left, the region of the gall-bladder being distinctly enlarged and tender to the touch. The hepatic dulness in the axillary line was of normal breadth, but it extended five or six centimetres beyond the normal in a downward direction in the mammary line. On changing the patient's position, no alteration in the situation of this abnormal dulness could be detected. The patient, on being asked, said that his urine deposited a red sediment, and that he had at times passed calculi with his stools. Dr. Pereira, having had experience of the good effects of ceterach in gravel and urinary calculus, and believing that it exerts an influence in "calculus diathesis," decided to employ it in this case. A decoction of half a drachm of the plant in five ounces of water was ordered four times a day. During the first twenty days no effect was observed. By the end of another twenty days the symptoms of mental irritability had disappeared, and the pain in the hepatic region had very greatly diminished. In fifteen days more the tumor in the region of the gall-bladder had become much less perceptible. The patient had been kept on milk and broth, which he did not at all like. He had passed three gall-stones and some gravelly matter with his stools.

After this the patient continued to improve, though it was not easy to convince him that he was doing so. The amount of ceterach was diminished, and capsules of taurin prescribed, belladonna frictions being also applied to the hepatic region. He passed a succession of gall-stones, and the whole of the abnormal physical signs as well as the subjective symptoms passed away. Dr. Pereira hazards a suggestion that ceterach may have some effect on calculi already formed, as well as on the "calculus diathesis." He remembers being struck with the appearance of a stone—he does not say of what kind—which he saw removed from a young man's bladder, and which, though hard in some parts, was so friable in others that it could be broken down with the fingers. On questioning the patient it was found that he had for some time taken ceterach by the advice of an old native medicine-man, and that while he was doing so he had remarked that he passed more urine, and that it contained gravel. The pain, however, did not diminish, and so he lost faith in the treatment and gave it up. It is to be remarked that the use of ceterach in urinary calculi is by no means new. Dr. Pereira does not explain what relationship he supposes to exist between the "calculus diathesis" which leads to urinary calculi and that which produces gall-stones, or why a remedy which is useful in one case should be prescribed in the other; still his facts, such as they are, are worth noting, and they seem to have interested the members of the Mexican Academy of Medicine, before whom they were brought, and who had the opportunity of examining the various gall-stones and gravelly matter passed with the fæces, as well as the partly friable vesical calculus upon which Dr. Pereira's suggestions were in part based.—*Lancet.*

A Mixture for Flatulent Dyspepsia.

Lyon Médical, quoting from the *Revue de Chirurgie et de Thérapeutique*, gives this formula :

Tincture of gentian, tincture of star-anise, tincture of nux vomica, each eight parts ; chloroform, two to four parts. From eight to ten drops are to be taken before each meal in a wineglassful of water.—*N. Y. Medical Journal.*

Carnegie's Cure for Seasickness.

Nobody need be seasick (explained Andrew Carnegie, the millionaire), if he takes precautions and possesses a moderate degree of good health. This malady is often a bugaboo which people assume. The best medical authorities contend that the malady is an affection of the brain and spinal marrow rather than the stomach, and is, after all, only the effort of the brain to accustom itself to the motion of the ship and the sound of machinery. It follows that will-power is a large factor in warding off the dreaded illness. Make up your mind to be well, and after you are under way take a small powder of bromide of soda, which your chemist will prepare in proper doses, put it in half a glass of water, and renew the dose whenever you feel the slightest symptoms of nausea. Your effervescent salts before breakfast will do the rest of the preventive cure.

In any case, keep on deck as much as possible, dress too warmly rather than too coolly, and walk the deck an hour or two daily, rain or shine. Avoid over-eating the rich food with which ocean steamers are invariably stocked. There is no occasion to change your mode of life as to diet, because you are on the water, unless you have been extravagant; then let it be less so. Eat regularly, and aim to ingratiate yourself with your fellow passengers at table. You are all at the mercy of the treacherous waves. Surely, then, haughtiness or surliness is absurd ; in fact, I would recommend three arbitrary ingredients for securing good, moral, mental, physical and social results, and these are good nature, will power, and bromide of soda.—*The Western Med. Reporter.*

DISEASES OF THE URINARY ORGANS.

The Action of Certain Drugs on the Circulation and Secretion of the Kidney.

In the Section on Therapeutics of the IXth International Medical Congress, Dr. CHARLES D. F. PHILLIPS, of London, read a paper on this subject. It contained a number of very interesting experiments, made with Roy's onkometer, with caffein, spartein, strophanthin, digitalin and ulexin. He concluded that the flow of urine is not so much dependent on the blood pressure as on the rate of the flow of the blood in the renal vessels. With regard to this point, it is necessary to remember that, although such drugs as strophanthin produce a great increase in the force of the cardiac beats, yet these are very much slowed, so that it is quite possible that although the heart's action is stronger, yet the total amount of blood sent through any given organ, such as the kidney, in a given time, may remain the same. Whereas such a drug as digitalis, producing as it does a rise of blood-pressure and a contraction of the kidney-vessels, may cause an increased quantity of blood to pass through the renal vessels. On this view one could find the explanation of digitalin being a diuretic, and strophanthin not being one.

Inasmuch, however, as spartein has not so marked diuretic action, we must also assume that digitalin must have some peripheral action on the secretory apparatus of the kidney.

His results were tabulated briefly as follows, in three divisions:

A. Drugs that first contract, and afterward dilate the kidney.

1. *Caffein,* in small doses, induces in the stage of contraction a fall of blood-pressure—in that of expansion, a slight rise. During the former, the flow of urine may be arrested; during the latter it is always increased, such increase depending on dilatation of renal vessels.

(The possible arrest of secretion during the first stage is special to caffein, and may be induced by large or repeated doses.)

2. *Ulexin* — gr. 1-6 — greatly raises blood-pressure, during the first stage (that of contraction); in the second, expansion is much greater in degree but shorter in duration than under caffein, and is accompanied by brief but marked increase in urinary flow; the effective dose is limited by its toxic action on respiratory centres. Practically, excess of caffein induces only the first stage; excess of ulexin only the second.

B. Substances that dilate the kidney, but to less extent and more slowly than caffein and ulexin, are dextrose, urea, sodium chloride, and acetate, and probably all constituents of the urine.

C. Drugs that contract the kidney without subsequent expansion.

1. Digitalin, with increased secretion of urine (probably resulting from general heightened blood-pressure).

2. Spartein, with diminished secretion (in health at least).

3. Strophanthin causes slight temporary contraction, with no marked increase of secretion.

4. Apocynëin, similar temporary contraction, and no definite increase of secretion.

5. Turpentine; 6, adonidin; and 7, barium chloride give similar results.

In conclusion, it seemed to him that the plethysmographic method of experimentation is a valuable one for determining the exact action of drugs on the circulation, and one that deserves more attention than it has hitherto attracted.—*Medical Record.*—*Journal American Medical Association.*

DISEASES OF RESPIRATORY ORGANS.

Tuberculous Troubles.

The author of an article in the *Med. Zeit.*, who has had an opportunity of observing a whole epidemic of tuberculous troubles, caused by the circumcision of Jewish children by a phthisical person, who, according to Jewish rites, sucked the wound immediately after the operation, partly on account of these cases but just as much from other sources of observation, comes to the following conclusions in regard to tuberculosis and its relations to scrofula:

1. The tuberculosis, consequent upon the sucking of a raw surface by a phthisical person, must be looked upon as a direct case of infection.

2. In infancy and early childhood, the skin-lesions caused by scratching in cases of eczema and impetigo offer excellent opportunities for the entrance of the tubercle bacillus into the system.

3. The distribution or circulation of the bacteria in youthful subjects is carried on by lymphatics.

The first deposits are found in the lymphatic glands. Later on the cartilage and bone become involved.

4. Scrofula can be looked upon as a (lymphatic) children's tuberculosis.

5. The character (progress) of children's tuberculosis is generally a sinuating one, and prognosis mostly favorable.

6. The struggle for existence between the isolated tubercle bacillus and

the animal cell in children's tuberculosis, terminates usually in favor of the latter.

7. A directly infected case of tuberculosis has usually a worse prognosis than a spontaneous tuberculosis, just as in the case with animals.

8. Fatal issue in children's tuberculosis can usually be ascribed to basilar meningitis.

9. The positive existence of tubercle bacilli in children's tuberculosis cannot always be demonstrated.

10. At the age of puberty and later the only form of tuberculosis is that caused by inhalation.

11. Tubercle of the intestinal canal is in almost every case a secondary development, and is only rarely produced by partaking of tuberculous animal food.

12. Lupus is a specific tuberculosis of the skin.

13. Without some favorable pathological condition or predisposition such a lesion of the skin, mucous membrane or catarrh, the tubercle bacillus cannot very well enter and settle in the system.

14. The disposition to tuberculosis is more frequently acquired than inherited.

15. The treatment of phthisical patients and the disinfection of their sputa ought to be more energetically carried out.

16. Phthisis is of rather rare occurrence before the age of 15 years, as previous to this time the lymphatic system is more prone to tuberculous infection than the lungs.—*Weekly Med. Review.*

DISEASES OF THE NERVOUS SYSTEM.

Treatment of Sciatica by Refrigeration of the Sound Limb.

Some time ago M. Debove announced that he had been able to afford marked relief in a case of obstinate sciatica by means of a spray of chloride of methyl applied along the course of the sciatic nerve in the unaffected member. At a recent meeting of the Société Biologie, M. Raymond reported that he had obtained favorable results by a similar method in three cases. He found, however, that the effect was the same even when the spray was directed to any part of the limb, and not necessarily along the course of the sciatic nerve. This would seem to prove that the relief of the pain was due to an impression made upon the spinal centres by refrigeration of the peripheral nerve-terminations, rather than to a direct influence exerted upon the trunk of the affected nerve it self, or of its fellow in the opposite limb. —*Medical Record.*

Antipyrin in Lumbago.

The Paris correspondent of the *British Medical Journal*, relates a remarkable case of cure of lumbago by subcutaneous injection of antipyrin, observed in a man, aged 42, a patient at the Hotel Dieu. He could not sit down, and once in bed could not sit up. The lumbago was rheumatismal, for his fingers and toes were also swollen. After a first subcutaneous injection of 50 centigrammes (7½ grs.) of antipyrin, the lumbago completely disappeared. The injection of 50 centigrammes of antipyrin was continued every morning and evening, and at the same time three grammes (45 grs.) were administered by the stomach. The action upon the fingers and toes, although not immediate, was very rapid. The man is now perfectly cured.

Sore Throat.

PROFESSOR ATKINSON claims that for sore throat, chlorate of sodium is preferable to chlorate of potassium, for the following reasons: It dissolves more easily, acts more quickly, is more easily thrown off the system, and it does not affect the kidneys.—*Coll. and Clin. Record.*

CONSTITUTIONAL DISEASES.

Lecture on the Treatment of Typhoid Fever.

PROF. DR. HERMANN VON ZIEMSSEN, in an article published in the *Journal American Medical Association*, Aug. 27, 1887, says, under the head of diet:

We now come to the most important part of the treatment of typhoid fever—the feeding of the patient. Thirty years ago oat and barley water was the only food allowed in *febris nervosa*, as typhoid fever was then called; wine was allowed in convalescence, but not during the febrile period. Then came a time when albuminous food was forbidden on the ground that it would be but adding oil to fire. A change for the better came from England, where fluid albuminous food and stimulants, especially alcoholics, were given from the beginning of the disease, and the German physician was accused of keeping his typhoid fever patient hungry. At first the German physicians were very cautious with albuminous and alcoholic foods, but it was soon shown that under better feeding the patient withstood the disease much more easily, that less strength and flesh were lost, the convalescence was more rapid, and that less time was lost from work. The experiments of Jos. Bauer, Künstle and H. von Hösslin, made at the Munich Clinical Institute, and which showed that on the one hand the fever was not increased by giving fluid albuminous food and alcohol, and that on the other hand a large part of the nitrogenous food was absorbed in spite of the fever and diarrhœa, that it was of benefit to the organism, and that at all events the consumption of the albumen of the body was limited—these researches did much to naturalize a methodical good feeling in Germany. Of course no pure albuminous food is given, and still less fatty food. We must adhere as closely as possible to the normal proportions of food stuffs for the healthy organism as given by Voit, with the special consideration that fats are taken with difficulty by fever patients, best in milk, and that the carbo hydrates are not only best taken and best borne, but that they markedly limit the consumption of the albuminous and fatty matters of the body.

Especial consideration must also be given to the changes and variety in taste and in the consistence of the food. Nothing is so repugnant to the normal appetite and stomach as sameness in form and kind of food, and the typhoid fever patient is, possibly on account of his small appetite and weakened digestion, still more sensitive to sameness of diet. Careful attention should therefore be given to variety of fluid food. I say "fluid food," because solid and pudding-like foods cannot be given on account of the condition of the ileum, the ulcers of which might be irritated or ruptured.

A large variety of preparations can be made from the carbo-hydrates. Starch, dextin and sugar may be given in various forms, both in soup and drink; they are used through the whole course of the disease in mucilaginous soups. Oat and barley water, as thin as possible, is to be recommended as drink; by the addition of sugar, cinnamon or wine, etc., variety may be given to the taste. Then there are the manifold compounds of starchy and meat soups. These should all be strained and solid particles removed from them. Clear meat broth, with or without yolk of egg, meat extracts, etc., are also recommended. The meat broths must supply the necessary fatty food, as also the butter added to the soups and the milk.

Milk is the most complete mixture of albumen, fat and carbo-hydrates, and is an excellent food in typhoid fever, but too much of it will cause uneasiness in the stomach. Unfortunately, too, many persons cannot take it at all. Usually I do not give more than one pint in 24 hours.

In regard to other albuminous food I especially recommend freshly expressed meat juice, which, in so far as concerns digestibility, is preferable to eggs, etc.

In our hospital 15 or 20 pounds of beef are cut in pieces as large as the hand, a piece of linen cloth placed between each two pieces, and the whole put into the meat press (Reulaux's). The juice which escapes from the press consists of serum, lymph and blood; it is placed in a porcelain vessel and used as needed. The reaction of the juice is generally slightly acid when it comes from the press; it must therefore be placed on ice, and should be prepared fresh every 24 hours. About 150 or 200 grams should be used during 24 hours. As, according to Voit and Bauer, this juice contains 6 per cent. of albumen, the consumption of albumen during the day would thus be from 9 to 12 grams. It should be given partly in teaspoonfuls, as medicine, and partly in the soup (2 tablespoonfuls to the cup). The soup should not be over 46° C (114.8° F.), because the albumen of the juice would be coagulated; and if the broth is too hot it must be cooled before the juice is added. For cases in which all food is rejected by the stomach Dr. Ludwig, Physician to the German Hospital in London, uses a frozen meat juice, which is well retained. Meat juice is preferable to egg albumen and yolk of egg as a food on account of its greater digestibility, and on account of the fact that a patient will take it for weeks without repugnance, whereas he would soon refuse the daily use of egg albumen. In further favor of meat juice is the fact that it does not cause the slightest digestive troubles, such as eructations, gastric oppression, or flatulence in typhoid fever. I have used it daily for twelve years, in thousands of cases, not only in typhoid fever but of other diseases, and can recommend it most highly. The meat preparations of Kochs and Kemmerich, as well as the Rosenthal-Leube meat solution, are also to be recommended, but the taste of these preparations often causes eructations, and prevents their use for any length of time, which is not the case with expressed meat juice. Meat extract should be added to broths and soups in small quantity from the beginning of treatment, not merely on account of the taste, but as a stimulant to the nervous system. No more than a small quantity on the end of a knife should be used to the cupful of soup, so that the taste may not be too pronounced.

The addition of yolk of egg to the soup easily becomes repugnant to the patient, causing eructations and abdominal uneasiness. As a rule, more than three eggs during the day should not be used, though account must be taken of individual digestibility and idiosyncrasies. A very judicious combination is yolk of egg with brandy, in the form of Stoke's brandy and egg mixture. The addition of butter to the soup improves its taste as well as its quality as a food; as is true of the addition of salt.

I use wine from the beginning of the disease in the form of light non-acid white or red wines, about a pint a day. According to my experience the often used red wine cold in active intestinal symptoms (profuse diarrhea, meteorism) is not favorable; but when it is warm, in the form of mulled wine

(half a pint of red wine cooked with cloves, cinnamon and sugar), has an excellent effect on the diarrhea and meteorism; so, too, tea with rum, grog made of good cognac, and taken not too hot. I also use cognac regularly in the form of Stoke's brandy and egg mixture as medicine, a tablespoonful every two hours. It consists of the yolk of two eggs, cognac 50, cinnamon water 150, simple syrup 30 grams. The taste is exceedingly pleasant.

It will be seen that our typhoid diet contains a tolerably large quantity of albumen, fat and carbo-hydrates, though the albuminous matters are in proportionately larger quantities than the carbo-hydrates, as compared with the usual health diet. Renk calculated that in the daily diet of a typhoid fever patient, which the patient easily took was 91 parts of albumen, 78 of fat, and 100 of carbo-hydrates. In his typhoid fever diet at the Munich Military Hospital, Vogl uses a proportion of 60 of albumen, 45 of fat, and 200 of carbo-hydrates, and this is nearer to the proportion for the healty man, which Voit places at 85 albumen, 30 fat, and 300 carbo-hydrates, and Forster for the non-working public dependents at 67 albumen, 38 fat, and 266 carbo-hydrates. On account of the consumption of organic albumen in typhoid fever the amount of albuminous food must be proportionately larger. The researches of H. von Hösslin and Vogl show in the most unmistakable manner that organic consumption is limited by such diet, and that the duration of convalescence is shortened.

The preparations of lime are also useful, as the lime can preserve a large part of the albumen from decomposition (Voit, Senator). They may be used in the form of jellies, best prepared from fresh calves' feet with white wine. On account of their refreshing and pure taste they are very grateful to the patients, and may be given as a kind of cordial between other meal times.

It need scarcely be said that the energy of the feeding and the use of stimulants should correspond with the intensity of the disease; in a mild case, with a good constitution and moderate fever, it is not necessary to feed with the same energy as in a severe case with high fever, weak heart and considerable local lesion in the ileum. But it is advisable at the beginning of each case, even the mildest, to regard it as one which in the second or third week may become severe; and on this account the organic consumption must be prevented as much as possible by good feeding. But as a rule, the feeding and stimulants should be proportioned to the disease.

A diet table should be made out for the 24 hours, so that the attendants may follow it punctually and exactly, and thus the food and stimulants will be given at the right time. As a rule it is advisable, in severe cases, to give food every two hours, and drink (barley water, wine) and medicine between meal times. In this way the whole quantity of fluid food can be given, and the necessary variety given. The patient should be fed at night as well as during the day, but in mild cases consideration must be had for the patient if asleep. But in severe cases the two hour rule must be rigidly adhered to.

In regard to the diet of convalescence, it is well to follow the usual diet of health, though somewhat modified; but from the beginning of convalescence, that is from the first feverless day, I order fluid diet (except that biscuit may be soaked in the fluid food) for five days. This may savor somewhat of routine, especially to those who allow solid food during the whole course of the disease; but I recommend this nevertheless.

The return to solid food should be as follows: First breakfast, tea with biscuit, one soft boiled egg; second breakfast, 100 grams of finely minced raw bacon with wheat bread crumbs. Noon, 150 grams of pigeon, young chicken, partridge, finely minced in soup; later with a mild sauce and a tablespoonful of *purée* of potato (prepared with milk), with wine or export beer. Afternoon, tea with biscuit or cakes. Supper, mush and milk, two soft-boiled eggs, some raw bacon. This may soon be followed by calves' feet for breakfast, then an English broiled beefsteak or cotelettes of mutton with compote; and in the evening strengthening soup and some beer. At this stage, when the patient thinks of nothing but eating, something new in the way of food must be given daily. This is less the business of the physician than of the cook, but the physician should see to it that the food is properly prepared and digestible. Fruit, jellies and compotes, as of pears and apples, are very grateful now, as also wine and calves' foot jelly, and rice meal or grits well cooked, etc. Raw fruit is not without danger, and is best withheld during the first three or six weeks after the decline of fever, especially as cooked fruit in the form of compotes may be allowed in small quantities every day. It is very pleasant for the patient to have something between meals to prevent his feeling hungry; a cup of meat broth or wine jelly, a soft boiled egg, a few oysters, or some caviar with butter and wheaten bread, and a glass of Madeira or Chablis may be given.

Importance of Local Treatment in Diphtheria.

Dr. William Porter (*N. Y. Medical Journal*):

While many eminent practitioners depend upon general medication, and some have quite abandoned all forms of local treatment, it is evident that all indications are not met unless attention is given to the local manifestations of diphtheria. If the disease is of local origin, if the systemic infection is constantly receiving fresh re-enforcement by means of the ready absorption of the specific poison—aid the system by all means to throw of the incubus of infection, but also limit if possible the further supply.

How shall this best be done? This depends upon the amount of local progress. I do not hesitate to say that I have seen a local diphtheritic exudation melt away in three or four days under proper local applications, the system being at the same time well guarded. But were these true cases of diphtheria? This much in affirmation: Several of these of which I speak were in families where one child had just died from diphtheria, where the symptoms were all indicative of diphtheria, and where there had been every opportunity for infection.

An old cry is that a physician who professes to conduct his cases of diphtheria to a favorable termination is an alarmist, and his cases are simply follicular amygdalitis. Such a pitiable antagonism is unworthy a scientist. Mistakes do occur, and it is better they should be on the safe side; but I am willing to call a case diphtheria where I find that the child, having been exposed to the contagium, has anywhere upon the mucous membrane of the upper passages a thick, continuous yellow exudation, closely adherent to the mucous membrane, with a tendency to necrosis and sloughing, especially if the pulse is quick and weak and the temperature above normal. It is possible that such a case is not diphtheritic, but it is not probable, and we deal with

probabilities. The differences in local appearance and general condition between a follicular exudation and the characteristic false membrane of diphtheria are usually so marked that the physician need not be mistaken, and if he does err, let him give the child the benefit of the doubt.

Beyond this class we have another or advanced degree of the same class in which there can be no doubt as to the type of disease. We find it when called two or three days after the first attack. No longer is there now a small patch confined to the tonsil, or to a small part of the pharyngeal wall or soft palate. The natural guardians of the child have slept and the insidious enemy is in full possession. A dense dirty yellow and sometimes disintegrating exudation is found closely attached to the natural tissues in some places, and in others hanging in loose shreds, while the nasopharynx is filled with detached portions of membrane, retained mucus, and sometimes blood, and poison from this septic hot-bed is being rapidly absorbed and carried to the most remote part of the little frame. Each of these classes of cases demands special and distinct local management.

Let us consider the first class, where the membrane is yet small in extent and of recent formation. Can we close the portals of the absorbents and render the existing local focus of disease inert? After experimenting with many formulæ, I have for several years renewed my confidence in the mixture of equal parts of glycerine and tincture of chloride of iron. The more fashionable and really excellent practice of using bichloride of mercury provides for antisepsis, but not for the equally important matter of astringency. But little manipulation is needed in these early cases. A cotton covered probe is by far the best instrument, and with it the solution is not merely brushed over, but pressed against the point of attack. There is no necessity of hurting the child if care is taken, but, on the other hand, I retain a vivid picture of the good old doctor, conscientiously bound to do something, his spectacles awry, plunging a "swab" at random down the throat of a kicking child, or through the clinched teeth, scraping the mucous membrane from the roof of the mouth by the good help of the ubiquitous tablespoon. By proper tact the application may be made easily, and if it is repeated frequently—*i. e.*, every two hours—its efficiency will soon be demonstrated.

In the more advanced class of cases much more than this is needed. The extent of false membrane is greater, it is more difficult to reach, and the upper respiratory passages are obstructed. First, all of the detached membrane and *debris* should be removed by the syringe, and there is no better method of doing this than that described by Dr. Jacobi in the discussion following Dr. Billington's able paper on "Local Treatment in Diphtheria." (*Medical Record.*) A tepid but weak solution of common salt is an effective cleansing agent, after which a spray of bichloride of mercury solution can be used. The spray should be used warm, and to protect the nostril I often pass over the end of the spray-tubes a small piece of rubber tubing and roll it up, so as to fit the nostril fairly well. There is no use in attempting to employ the more direct and potent applications by means of the probe in these cases. Many other agents have been used by spray and inhalation or insufflation, such as carbolic acid, lime water, weak solutions of iron, etc. These are useful, but time forbids speaking of all.

When there is great irritation from

laryngeal involvement—if the exudation is not too great—the vapor from slaking lime often gives relief.

I should greatly exceed my limit of time did I attempt to discuss the relative value of tracheotomy and intubation. The opportunity is given, however, to call attention again to what I believe to be an important addition to the ordinary procedure in tracheotomy, *i. e.*, to fill the larynx above the artificial opening with a pledget of cotton or small sponge saturated with an antiseptic solution, to prevent, if possible, the extent of the local disease by continuity of surface.

Let me repeat these thoughts: 1. Diphtheria is in its incipiency a local disease. 2. Local treatment is important, an aid to, but never a substitute for, the careful general medication and care. 3. The exact means used in local treatment may not be important, but the end to be accomplished is the speedy sterilizing and disintegration of the diphtheritic exudation, without injury to the adjacent tissues. 4. The local treatment must be conducted promptly, persistently, and carefully.

Comparison of the Coagulation of the Blood with Rigor Mortis.

Dr. W. D. Haliburton, of London, Eng., read a paper on this subject before the International Medical Congress, of which the following is an extract:

The coagulation of the blood can be prevented either by cold or by the admixture of certain neutral salts. Kuhne was the first to show that cold prevents the coagulation of the muscle plasma of frogs. By means of methods very similar to those employed by that observer, the muscle plasma of warm blooded animals can also be prevented from coagulating by the same agency. Mixture of the muscle plasma with solutions of certain neutral salts will also prevent its coagulation; and, as in the case of salted blood plasma, dilution of such salted muscle plasma brings about the formation of a clot of myosin; this occurs more readily at the temperature of the body, and is entirely prevented by a temperature of 0° C. (?) It is hastened by the addition of a ferment prepared from muscle in the same way as Schmidt's fibrin ferment is prepared from blood. Rigor mortis is thus the result of a ferment action similar to that which converts fibrinogen into fibrin; but the myosin ferment is not identical with fibrin ferment, as it does not hasten the coagulation of salted blood plasma, nor does the fibrin ferment hasten the coagulation of muscle plasma.

The myosin ferment is either identical with, or closely allied to, one of the proteids of the muscle plasma, which has the properties of an albuminose.

Though it is thus seen there are very striking resemblances between the formation of fibrin and that of myosin, there are also certain differences, of which the most important are the three following:

1. Myosin can be easily re-dissolved by solutions of neutral salts, and this solution can be made to undergo re-coagulation by dilution and addition of myosin ferment. The passing off of rigor mortis seems to be due to a similar re-conversion of myosin into myosinogen. Fibrin, on the other hand, cannot be made to undergo such a-re-coagulation.

2. The formation of myosin is accompanied by the formation of lactic acid. The same acid is formed when the re-coagulation of pure myosin occurs, and its source is thus shown to be a proteid one, not a carbohydrate, as some have supposed. Fibrin formation is not accompanied by the development of any acid, so far as we are aware.

3. The conversion of myosinogen into myosin is not accompanied by the formation of another globulin, as is the case in the conversion of fibrinogen into fibrin.

Counting the Ribs.

Physicians are frequently mistaken in counting the ribs. One must never start at the clavicle. We must start from the suprasternal notch, obliquely and below which is the first intercostal space. Or again by palpation of the sternum the first projection is the junction of the first and second piece, at which we find the articulation of the second rib. One is sometimes astonished at the space between the clavicle and the third rib, and forget the breadth of the first rib.—*Canada Practitioner.*

Blue Ink for Stamps and Pads.

Dissolve 2 parts of borax in 20 parts of water, heat to boiling, and dissolve in it 2 parts of bleached shellac; separately dissolve 2 parts of gum arabic in 5 parts of water; with the latter solution mix intimately 1 to 2 parts of best ultramarine and add to the shellac solution. Finally, add enough water and a little glycerine, if necessary, to make 25 parts. —*Chemist and Druggist.*

Physiological Effects of Red Coloring Material Employed in Coloring Food-stuffs.

ARLOING and CAZENEUVE have made experiments to ascertain the toxicity of coccellin and a Bordeaux red, which are employed to color nitrogenized food-stuffs. The innocuousness of these substances may be inferred from the fact that as much as 18 grammes (℥ ivss) was injected into the blood of a dog without a fatal effect. The organs of circulation and respiration were, however, very greatly affected. The heart's action was much weakened, the small blood vessels paralyzed, and the inspiratory movements almost abolished. First to fail was the vaso-motor system; then the respiratory apparatus and the heart were attacked. If still more of the substance was injected, death from heart paralysis followed. An analysis of the gases contained in the blood showed the process of oxidation after the injection into the blood but little affected. When these substances were fed to animals for a long time they were absolutely harmless. Post-mortem examination of animals which died after taking the substance showed in the internal organs nothing whatever abnormal. The use of these substances to color sweatmeats and liquors, and other allied food-stuffs, Arloing and Cazeneuve consider justifiable, while on the contrary, other injurious coloring matters are to be expressly forbidden.—*Bul. de l'Ac.*—*Therap. Gaz.*

Chloral Hydrocyanide.

This is recommended by Hermes (*Inaug. Dissert*, Berlin, 1887; *Medical Chron.*) as a substitute for hydrocyanic acid, on account of its stability and constancy of composition: 6.46 parts of the compound are found to correspond to 1 part of anhydrous hydrocyanic acid.—*N. Y. Medical Journal.*

Amygdalitis Follicularis and Idiopathic Peritonitis.

FROEHLICH, an army physician, has met with several cases of follicular amygdalitis among the soldiers in the garrison. As observed by him, the disease begins usually with repeated chills, with more or less fever and dysphagia. The lacumæ of the tonsils are filled with a yellowish-white pus. The general condition of the patient is very much disturbed, and there are anorexia, headache, lassitude, and severe pains in all the extremities. In from one to three

days, however, after profuse perspiration, the patient feels comparatively well. But one case which he observed, and which ended fatally, made him change his views as to the innocent nature of the affection. A soldier was taken ill on January 16th, with headache and dysphagia, but did not report himself as sick till the 18th, when a follicular amygdalitis was recognized unattended with fever. On the following day, as he had some fever and frequency of the pulse, he was admitted into the hospital. That afternoon he became quite ill with what afterward proved to be peritonitis. He died on the morning of the 21st of January. The autopsy was made in the afternoon of the same day. Apart from enlarged tonsils and an enlarged thyroid gland, there was found a peritonitis with fibro-purulent effusion. There was no disease of any kind of the mucous membrane of the alimentary canal. At the beginning of the autopsy Froehlich slightly wounded his finger; the wound was cleansed and painted over with collodion. That night he began to have pain in the finger, and on the next day there was lymphangeitis of the arm, with swelling of the axillary glands. On the second day the tonsils became affected with follicular inflammation. On the 24th of January, the doctor's wife became ill with a similar affection of the tonsils. The pathological assistant who helped to perform the autopsy, in sewing up the abdominal and chest cavities, pricked his thumb a few times with the needle. He passed through a similar train of symptoms as the doctor, only that the onset was two days later. He also had during his illness an attack of follicular amygdalitis. All three, however, made a fairly good recovery. The author deduces from the foregoing circumstances that follicular amygdalitis is contagious and may at times prove a formidable disease. He looks at the peritonitis as being caused by the poisonous germs of the amygdalitis.

[The question of the infectiousness of follicular amygdalitis seems far from being settled. It seems in many cases to be a question of diagnosis, and one which is not easily solved in a given case. From not an inconsiderable experience we are inclined to concur with the opinions of Jacobi on the subject, as expressed in a paper read before the Academy of Medicine last year. These, as we understand them to be, are that follicular amygdalitis may be of catarrhal, purulent, fibrinous, or diphtheritic character. When it is of diphtheritic character (commonly known as punctate diphtheria) it is highly contagious, and may give rise to a very severe attack of diphtheria. The different varieties are not easily distinguished; hence it is better to err in the right direction and isolate every patient with follicular amygdalitis the same as if he were suffering with diphtheria.]—*N. Y. Med. Jour.*

DISEASES OF THE URINARY ORGANS.

Some Morbid Conditions of the Urine.

Dr. F. W. Pavy, F. R. S., of London, read the following paper:

There is a condition which I presume has been brought before the profession in America, in which albumin exists at a certain time of the day and not at others. I have suggested for this condition the term *cyclic albuminuria*. I have studied these cases for some years past, and I should think that they occurred in this country as well as in the Old World. I know that they occur in Germany, for the matter has been taken up there and followed out. This condition is observed in persons who are excitable and of a nervous disposition, and, as a rule, in young persons,

although I have met with some cases in the middle-aged. The albumin is to be met with at one time of the day and not at others. These cases are recognized, as it were, only by accident. Sometimes the urine is examined on account of some pain in the loins, but most frequently these cases are discovered through examinations for life insurance purposes or for some branch of the civil service, as is required by the Bank of England. So long as the individual maintains the recumbent posture, no albumin will be detected, but in an hour and a-half or two hours after rising the maximum quantity of albumin will be found. As a rule, the quantity of albumin declines toward evening, and on going to bed it has entirely disappeared. Sometimes a trace of albumin is to be found in the afternoon and evening, but the first urine passed on rising in the morning contains no albumin whatever. These cases seem to be of no serious import. I suppose that the presence of albumin depends on the condition of the vessels. I suppose so, but certain it is that these cases are not associated with any constitutional condition. I now come across quite a large number of them.

I shall next refer to sugar in the urine. This is another morbid element which has varying degrees of importance. In young persons it is of the gravest import, while in elderly persons it is not so serious. In early life I have known cases to go on for years, but this is the exception; the usual duration is about two years. Ultimately they all terminate unsatisfactorily. After the middle period of life, however, sugar in the urine has a very different significance. In young subjects we have a disease which seems to be of a progressive nature. Notwithstanding whatever we may do for it, there is something which insidiously progresses in the system and leads ultimately to a fatal termination. But after the middle period of life a good deal depends upon the patient himself. Under proper management the disease may, as a rule, be held under control and the patient live for years in a satisfactory condition, but, to accomplish this, rigid measures of treatment must be carried out.

One may express in a very few words, and without advocating any idea or theory, the precise nature of *diabetes mellitus*, or sugar in the urine. I should speak of it as a defective or faulty assimilative — a faulty chemistry. The elements of the food which we take undergo chemical change in the system, by which they are rendered useful. A certain group of principles entering largely into the composition of our food are the carbohydrates. These principles in diabetes do not undergo their proper chemical change and thus become eliminated from the system. What do we observe in a state of health? A person takes one of the carbohydrate group, it makes no difference which—starch, grape-sugar, cane-sugar, dextrin, or sugar of milk; they all behave alike in the system—and it is so changed as to be rendered subservient to the requirements of the system. In a state of health we see nothing more of them. Not so in diabetes. In the diabetic these carbohydrates are no longer consumed. There is a faulty disposal of them. Received into the alimentary canal and afterward absorbed, they do not undergo their proper transformation, but pass off from the system in the form of sugar in the urine; so that I say, looking at these two conditions, a condition of health and a condition of diabetes, we may describe diabetes as a faulty disposal—a faulty transformation or assimilation of the carbohydrate elements of our food. In diabetes, in proportion

as these carbohydrates are taken, so will be the amount of sugar in the urine. This I can say without any hesitation whatever.

In order tc follow a case of diabetes satisfactorily, I consider that a quantitative examination of the urine should be made, and, for myself, I feel quite in the dark as to the progress of a case unless I have this quantitative examination. In my own practice I keep an analyst who examines the urine of patients—a night and morning specimen—and directly I get the analytical report, I can read off exactly the condition that I have to deal with. Without this I should be perfectly in the dark as regards the progress or the severity of the case. It does not do to rely on the specific gravity. I have met with a specific gravity of 1.040 without any sugar in the urine. Medical men are often concerned over the specific gravity of the urine. The patient may have been put under treatment, but still the specific gravity keeps up to 1.032 or 1.035, although the urine is free from sugar. Under these circumstances I say to the medical practitioner, do not concern yourself with the specific gravity. If the urine is free from sugar, the high specific gravity is a favorable sign, as showing that the kidneys are equal to good work. If the kidneys were diseased there would be a low specific gravity. The high specific gravity may be kept up by the passage of only a limited quantity of water, and by the nitrogenous diet which the patient is taking adding to the elimination of urea. On the other hand, a low specific gravity may sometimes be met with where there is a considerable quantity of sugar in the urine. I have met with a specific gravity of 1.009 or 1.010, and yet the urine contained a considerable quantity of sugar. These have been mixed cases of diabetes insipidus and diabetes mellitus. They are proved to be mixed cases by the fact that, when the patient is put under proper dietetic treatment, the sugar disappears, but the quantity of urine keeps up. I myself do not attach so much importance to the specific gravity as is done by certain medical men.

In testing the urine for sugar, my opinion is that the copper test is by far the best. As we all know, Fehling's solution is the test generally employed, but there is a disadvantage about Fehling's solution, it does not keep well; after being kept some time it throws down a precipitate without the presence of sugar. This has led to many mistakes in diagnosis. I have frequently had patients sent to me with the statement that they were suffering with diabetes mellitus, when the only trouble was that a faulty Fehling's solution had been employed. Some years ago I directed my attention to the question whether the ingredients of Fehling's test could not be put together in the form of a pellet and the solution be made as required. Certain difficulties were experienced at the outset, but these have been overcome. The pellets, as now made, consist of sulphate of copper in the anhydrous form, Rochelle salt and potash. It is necessary to separate the sulphate of copper from the potash. This is done by first putting in the die the sulphate of copper, then a little Rochelle salt, next the potash, and, finally, more Rochelle salt. The pellet, after being made, is surrounded with waxed paper and kept in a well-stoppered bottle. If properly prepared and handled with care, the cork not being left out of the bottle, these pellets will keep indefinitely. There is this advantage about the pellet—it will never deceive you, for if it is allowed to absorb moisture, it at once becomes unfit for

use, the oxide of copper being thrown down in the form of a black precipitate.

In the treatment of diabetes I attach the greatest importance to diet. I do not consider that you can get on with the management of these cases unless you exclude as far as possible those principles of which there is a faulty assimilation. If sugar appears in the urine, it must previously have existed in the blood. I know from frequent examinations that the blood contains a trace of sugar, which may be represented in figures as from 0.5 to 0.8 part in a 1,000. In harmony with this condition of the blood, there has been a trace of sugar in the urine.

The ammonio-cupric test is the one I employ as a quantitative test. It consists of Fehling's solution with the addition of ammonia. With Fehling's solution there is, on the addition of saccharine urine, a precipitate of the suboxide of copper, and, for quantitative purposes, this precipitate interferes with the determination of the exact time when complete reduction has taken place. While the presence of ammonia does not interfere with the reduction, it keeps the reduced suboxide in solution, and we get the decoloration without the formation of any precipitate whatever. The addition of ammonia gives a more intense blue color to Fehling's solution, and this is brought by the reduction to the color of water without the formation of any precipitate. With the apparatus in perfect order, the quantitative determination can be made in two or three minutes. This test is so delicate that ordinarily, to perform it satisfactorily, you have to dilute the urine 1: 20, and where it contains much sugar, 1 : 40. I usually determine the proportion of sugar in a thousand parts of urine, but, if it is desired to determine the number of grains to the ounce, this can be done by multiplying the quantity in a thousand by 0.4375.

In examining the urine of a diabetic, I generally desire that a night and morning specimen be brought. When a person lives as people ordinarily live in England—that is to say, taking a meal on rising in the morning, breakfast ; and a meal in the middle of the day, lunch ; and a meal in the early part of the evening, dinner—the urine passed on going to bed contains considerably more sugar than the urine passed in the morning. Where a person dines in the middle of the day and sups shortly before going to bed, then the conditions are reversed—there is less sugar in the night water than in the morning water. Over and over again, by the quantitative examination of the urine, I have detected errors of diet where the patients have had the greatest desire to keep to what was right. A person who has been passing only a little sugar brings a specimen which contains a large quantity of sugar. Under such circumstances we must look for some error in the preceding meal. In one case this proved to be blanc-mange which had been made with corn flour. Blanc-mange for the diabetic should be made with cream and gelatin or isinglass. In another case a patient had been passing very little sugar, when suddenly the quantity increased. Careful questioning revealed no error in diet, until it was learned that the patient had substituted for the bran biscuits which he had been using others said to be "just as good," which examination showed to be made of the whole meal. I refer to these cases to show the value of the quantitative analysis.

In the treatment of these cases the exclusion of the carbohydrate elements of the food should be as complete as possible. In the case of a person in the middle period of life, I first put the pa-

tient upon a strict diet. Very often the sugar for a time lingers in the urine. It is materially diminished, but has not disappeared. I may also say that I have, in addition, recourse to opium, codeine, or morphine, for I believe that these drugs have an important influence in controlling the disease—or, to put it in other words, they restore the assimilative power. Certain it is that, under the influence of these drugs and strict diet, sugar after a time disappears from the urine; and after the urine is kept free from sugar for a few months, I find that the individual has a certain amount of assimilative power over the starch of bread. I test this by giving him a couple of ounces of bread. Frequently there is no reappearance of sugar. If there is no return after this has been continued two or three weeks, I increase the quantity to three ounces per diem. Then, if there is no return, to four ounces and a half; and, finally, to six ounces. Then the person is in the position of a small bread-eater. I recommend patients to be content with that. They can very well give up potatoes and sugar, but to give up bread is a serious matter with many people. When a person can take six ounces of bread per diem he is not in an unfavorable condition. Many of these persons can continue to take this quantity of bread with no sugar in the urine. If, however, they go further and resume their ordinary diet, there will be a reappearance of sugar. The urine must be taken as the guide. Treating the case in this way, my experience is that, after the middle period of life, these patients do exceedingly well.

DISEASES OF THE NERVOUS SYSTEM.

Rational Treatment of Hysteria.

DR. FISKE-BRYSON, in an article published in the *N. Y. Medical Journal*, says, in conclusion:

The first thing in the way of treatment is to send new impressions to the brain. It is a foregone conclusion that the environment is wrong. Thus it becomes the physician's duty "to break up the tiresome old vault of heaven into new forms." By degrees the whole plan of life must be changed. Mechanical abuses should be corrected at once. Properly adjusted glasses, the reposition of the uterus, or a high sole to raise a short leg, have sometimes proved curative measures. Well-fitting garments of appropriate texture and style are essential to the hysterical patient. "He that hath not strong nerves must have a good coat." Sunshine, fresh air, systematic occupation, the liberal use of sponge baths, early hours, amusement that is really recreation, regular exercise, and a nutritious diet adapted to each particular case, are the chief therapeutic agents in the rational treatment of hysteria.

The medical treatment is about what it always has been. Every hysterical patient is a law unto himself, and should be studied as a unique specimen. Whenever melancholy is persistent or profound, small doses of opium or morphine overcome it, as a usual thing, in a surprisingly short time, and make it possible for the sufferer to eat, sleep and bear with equanimity the sounds of the rude world. Overfeeding is in this case also indicated. Broth, gruel, and cream, eat some statd hours between meals and the last thing at night before going to bed, are means to this end. Cayenne pepper at each meal and cod-liver oil directly after, help wonderfully. Little whims in the way of food are not to be lightly disregarded. Sometimes the patient's stomach is right and the books are wrong.

The treatment of hysteria is not so much a matter of drugs as of mental,

moral, and social management. The physician, whether man or woman, must have a keen appreciation of the patient's own feelings, a firm mental and spoken assurance that the disease is a real thing and no fancy, a strenuous desire to help these people in their dire weakness and set them right when wrong, a manner that is calm, cheerful, and sympathetic, together with a strong will, infinite patience, and ready tact. The most minute details of daily life have to be arranged by the medical adviser, as the patient's will is paralyzed more or less completely. For convenience, the arrangement of those details that constitute the rational treatment of hysteria may be thus classified in the order of their importance :

EXERCISE.—*Active.* Housework, Gymnastics, Walking, Rowing, Swimming, Out-door sports, Reading aloud.

Passive. Electricity, Massage, Riding, Driving.

Occupation.—Some vital interest outside the tread-mill of daily home life, as specialized philanthropy, the study of some branch of science or art, at regular hours away from home, or a hobby, such as forming a collection of stamps, coins, minerals, etc. Sewing to any extent is highly injurious. At the same time, if the woman under treatment can not sew at all, lessons in artistic embroidery will certainly send new impressions to the brain, and prove of disciplinary value. Piano practice should be interdicted. The position is bad, and the monotonous vibration of "exercises" a direct source of nervous irritation. The *piano forte* as a factor in hysteria is beyond the limits of this paper, yet it is what journalists call a juicy subject. Shopping is another occupation that must be given up. Fortunately, there are such things as friends and professional buyers. All places where the air is bad must be carefully avoided, as stores, churches, halls, and theatres.

Diet can be infinitely varied according to circumstances. Milk, eggs, cereals, fresh vegetables and fruits, and their combinations, render it almost unnecessary to eat twice of the same dish during the year. Little or no meat is best. Sometimes a strict Salisbury diet is better. Alcoholic and malt liquors frequently do harm, yet claret, port, and Burgundy have been known to do great good.

Clothing should be light and warm, the weight suspended from the shoulders, loosely fitting, and costly as the purse can buy.

Sea bathing combines many elements of cure, such as sunshine, fresh air, active and passive exercise, and recreation. It is usually well borne when not too frequently indulged in. One great advantage is that it takes the patient away from home.

Recreation must be merry and non-musical. There is a sense of isolation about music peculiarly undesirable for the class of patients under consideration. Providing healthful amusement will tax the physician's ingenuity to the utmost, especially as Americans do not know how to amuse themselves, and have not yet learned what forms of recreation are best suited to counteract the effects of wear and tear in this climate. Married women who practice absolute continence should be instructed that this is not the way to live, and that such a mode of life is positively injurious to themselves. An appeal to their sense of honor and moral responsibility will do more than many preachments.

Remedy for Neuralgia.

DR. JOHN T. METCALF, a well known physician of New York, writes to the

Boston Medical and Surgical Journal, that the following formula was learned by him from one of his patients whom he sent to Cuba with the hope that a change of climate would afford relief from sciatica. A French physician who there attended him, used this remedy with the best results, and Dr. Metcalf has tried it so often with success that he speaks of its value with great confidence: Equal parts of the tinctures of aconite root, colchicum seeds, belladonna, and actea racemosa. Six drops to be taken every six hours till relief is felt. The doctor says that "as an internal remedy it is worth all others put together of which I have knowledge."

DIGESTIVE TRACT.

Formulæ for Purgative Mixtures.

In obstinate constipation: Ol. ricini, ʒ 7½; syrup. rhei., ʒ 5; alcohol, ʒ 3¼; essent. menth. piper., gtt. ii; in one dose or two, as needed.

As podophyllin is insoluble in water, a chemist has prepared a "liquor of podophyllin," containing one-sixtieth of a grain to fifty minims. This may be prescribed as follows: Liquor of podophyllin, ʒ 2½ to 3; decoction of aloes, ʒ 7½; tincture of capsicum, gtt. 5.

An agreeable purgative powder or mass results from the combination of the following ingredients: Rad. jalap. pulv., 1 part; sennæ fol. pulv., 1 part; sacchar. albæ., 1 part; tamarind. pulp., 6 parts; which may be partially dried and made into chocolate-covered tablets.—*Rev. de Therap.*—*Medical News.*

Elixir of Cascara Sagrada.

A committee appointed by the British Pharmaceutical Conference, to prepare a formulary of unofficial remedies, reported the following formula for cascara sagrada: ℞. Tincture of fresh orange peel; 2 fl. ozs.; rectified spirit, 1 fl. oz.; cinnamon water, 3 fl. ozs.; syrup, 6 fl. ozs.; fluid extract of cascara sagrada, 8 fl. ozs. Mix. Dose: 15 minims to 2 fluid drams.—*Druggists' Circular.*

Action of Saline Purgatives.

LEUBUSCHER offers the following conclusion in regard to the action of saline purgatives, after a series of experimental researches in this line:

1. That an exaggeration of the peristaltic movement of the intestine only plays a secondary part in the action of saline purgatives.

2. In whatever manner saline purgatives may be introduced into the intestine, the intestine becomes the site of a great secretion of liquid, which is the principal cause of the purgative action.

3. It is impossible to claim for saline purgatives that they act as a barrier to reabsorption.

4. Saline purgatives introduced into the circulation in sufficient quantity produce constipation.—*Edin. Med. Jour.*

DISEASES OF RESPIRATORY ORGANS.

Terebene in Diseases of the Lungs.

In a paper published in *New York Medical Record*, Dr. D. M. CAMMANN reports a series of cases of respiratory disorders treated with terebene.

An analysis of the histories of eighteen cases shows that eight were emphysema, six bronchitis, three phthisis, and one asthma and bronchitis. Two cases of bronchitis, one of which had lasted for a few days, and the other for a month, were cured. Three cases of chronic bronchitis showed great improvement. One case showed no improvement after taking ten drops of terebene every four hours for five days. In this case the treatment was subsequently changed several times without any improvement occurring in the patient's condition.

Seven of the cases of emphysema improved, and most of them to a marked degree. One case was unimproved after taking the medicine for two months. The three cases of phthisis and the cases of asthma all improved. The time that the cases were treated varied from a few days to five months. The average length of treatment was fifty-five days. The terebene was given either dropped on sugar or in a mucilaginous mixture, in doses of from ten to fifteen minims, three or four times daily, and occasionally more frequently. In nearly every case the terebene was given without any other drug. Of these eighteen cases only two, or one in nine, were unimproved. In the other cases the dyspnœa was diminished, and usually to a marked degree. In fact, dyspnœa was the symptom upon which terebene seemed to have the most uniform and favorable results. The expectoration was thinner and lessened in quantity. In eight out of sixteen cases the patient said that the urine was increased; in the other eight cases they had noticed no change. In two cases vomiting occurred, but it was after eating or coughing, and the patients themselves did not attribute it to the medicine. In two cases hæmoptysis ceased a short time after taking the terebene. I regret it has been possible for me to use it in only two cases of hemorrhage, as the result was so favorable as to warrant its further trial.

Terebene in some of its effects resembles turpentine, but is less irritating. In one case a patient took by mistake a teaspoonful every four hours for a week without any unfavorable result. (Murrell.) In none of my cases were the bowels affected. In those in which the urine was increased, no signs of extreme irritation followed, even when the drug was used for several months.

In addition to the cases already mentioned, I have used terebene in forty or more cases, in which histories have not been kept, but in which the results were equally favorable.

The cases reported in this paper are not, perhaps, a sufficient number from which to draw general conclusions, but taken in connection with those already reported it may be said that we have in terebene a valuable drug. It is useful in acute cases, and in chronic cases of emphysema it seems especially beneficial in relieving the dyspnœa.

Bronchial Catarrh.

The following prescriptions are taken from EWALD'S *Handbuch der Allg. und Spec. Arzneiverordnungslehre* (Berlin), by *Medical and Surgical Reporter.*

℞.—Ammoniac, gr. cxiiss; acetic scillæ, gr. ccxxv; aq. fœniculi, f ℥ vj f ℥ ij; ext. glycyrrhizæ pur., gr. cl. M.—Sig. Teaspoonful every ½ hour in profuse purulent expectoration.

℞.—Ammon, chlo., ext. glycyrrhizæ pur., āā gr. lxxv; aquæ ad., f ℥ vj. M.—Sig. Dose f ℥ ij–f ℥ ss.

℞.—Ammon. chlor., gr. lxxv; pulv. rad. alth. (Marshmallow), pulv. rad. glycyrr., āā gr. ccxxv; antimonii sulphidi, gr. ix. M.—Sig. Take a teaspoonful in a small tea cup of water, 3 or 4 times a day.

℞.—Decocti rad. alth. (Marsh.), f ℥ iv f ℥ vss; ammon. chlor., gr. xviij; tr. opii, ♏ viiss; syr. senegæ, f ℥ ss. M.—Sig. Two teaspoonfuls every 2 hours.

℞.—Ammon. chlor., gr. lxxv; rad. ipecac. pulv., ext. hyoscyam. āā gr. viiss; ext. glycyrrh. pur., q. s.; ut. ft. pil. no. c. Sprinkle with pulv. rad. glyc. Sig. Six pills three times a day.

℞.—Apomorph. hydrochlor. cryst., gr. 1-6; aq. dest., f ℥ iiiss; ac. hydrochlor, ♏ iv; syr. simp., f ℥ ivss. M.—Sig. f ℥ ss every ½ hour, as an expectorant.

℞.—Morph. hydrochlor., gr. ss; apomorph. hydrochlor, gr. ss–j; acid. hydrochlor. dilut, ♏ viiss; aquæ, f ℥ iv f ʒ vss. M.—Sig. f ℥ ss every 2–4 hours.

℞.—Apomorph. hydrochlor., gr. 1-6; solve in— aq. destil., f ℥ ss; syr. marshmallow, ♏ cl. M.—Sig. Twenty drops every hour, as an expectorant in children; teaspoonful as an emetic in children.

℞.—Bals. peruv., ♏ xv ; myrrh, gr. xxx; ext. opii, gr. v. M.—Div. in pil. no. xxv. Sig. 2–4 pills twice a day in ch. bronchitis.

℞.—Pulv. rad. ipecac, gr. viiss; antimonii sulphidi, ext. senegæ ; ext. conii, āā gr. xv. M.—Ft. pil. no. xxx. Sprinkle with lycopodium. Sig. 1–2 pills 3 times a day in chronic bronchitis.

℞.—Pulv. opii, gr. iss; pulv. fol. digital., pulv. rad. ipecac, āā gr. iij ¾ ; ext. hyoscyam. gr. xxj ; pulv. rad. alth., q. s. M.—Ut. ft. pil. no. xxv. Sprinkle with lycopod. Sig. 1 pill every 3 hours in spasmodic cough.

℞.—Ext. ipecac, gr. iss ; antimonii sulph, gr. iij; ext. senegæ, gr. xv ; ammoniac, gr. viiss. M.—Ft. pil. no. xx. Sig. 5 pills 3 times a day in ch. bronch.

℞.—Flor. arnicæ, gr. xxxviiss; camph. (triturated), gr. viiss; ammon. chloridi, gr. cl ; sacch. alb, ʒ ivss. M.—Ft. pulv. Sig. Tablespoonful 3–4 times daily; expectorant.

℞.—Aq. amygdal. amar, f ℥ iv ʒ vss; syr. tolutan, ♏ ccxxv; tr. opii camph. tr. scillæ, āā ♏ iij ; ammon. carb., gr. xv–xx. M.—Sig. Tablespoonful twice a day to promote expectoration.

℞.—Creosoti, ♏ viiss ; acid. acet., ♏ lxxv; aq. destil., f ℥ v. M.—Sig. Dessertspoonful with 2–3 tablespoonfuls water put in an inhaler.

℞.—Inf. rad. ipecac, f ℥ v; ammon. chlor., gr. lxxv; sp. am. aromat, ♏ lxxv; syr. senegæ, f ℥ iiss. M.—Sig. Tablespoonful every 2 hours, in bronchial catarrh of very weak persons without fever.

℞.—Sp. am. aromat., ♏ xv; inf. senegæ rad., f ℥ iij; syr. fœnic, f ʒ vj. M.—Sig. Small teaspoonful every hour in bronchitis of infants.

℞.—Sp. am. arom, ♏ lxxv; aq. amygdal. am., ♏ cl; aq. aurantii flor., f ℥ iss. M.—Sig. Teaspoonful 2–3 times a day, in chronic catarrh.

℞.—Myrrh, gr. xxx; gum arab., ʒ ij ; rub with elder flower water, f ℥ iv ʒ vss; adde ammon. chlor., ext. glycyrrhizæ, āā ʒ j; syr. bal. peruv, f ℥ ss. M.—Sig. Tablespoonful t. d. (Oesterlen.)

℞. — Sodii phosph., ʒ v ; solve in fol. digital, f ℥ ivss; syr. pruni virg., f ʒ v. M.—Sig. One tablespoonful, in bronch. with disposition to phthisis.

℞.—Inf. juniper berries, f ℥ vj; ext. juniperi, ʒ v. M.—Sig. Tablespoonful every ½ hour, in chronic bronchitis.

℞.—Rad. ipecac., gr. 1¼ ; ammon. chlor.; ext. glycyrrhizæ, sacch. alb., āā gr. xxxviiss. M.—Ft. pulv. no. vj. Sig. One powder every 2 hours.

℞.—Opii, rad. ipecac. pulv., āā gr. iiij ; ex. hyoscyam, gr. viiss ; ammon. chlor., gr. xxij; ext. glycyrrhizæ pur., q. s. M.—Ut. fiat pil. no. xxv. Sig. One pill t. d., and during evening and night 2 pills every 3 hours. In violent cough.

℞.—Inf. rad. ipecac., f ℥ iij–f ʒ vj ; morph. hydrochlor., gr. ¾; aq. amygdal. am., f ʒ v. M. — Sig. Tablespoonful every 2 hours, in bronchitis with spasmodic cough.

℞.—Ol. terebinth, f ℥ iij; acid. acet., f ℥ ss; yolk of one egg; aq. rosæ, f ℥ iiss; ol. lini, ʒ j. M.—Ft. liniment. Sig. To rub the breast with, especially in bronchitis.

℞.—Ol. terebinth, aq. destil, āā f ℥ iss; yolk of one egg; ol. lini, ♏ lxxv. M.—Ft. liniment. Sig. For different chronic affections of the chest.

THE AMERICAN MEDICAL DIGEST.

PART II.

SURGERY.

THE

AMERICAN MEDICAL DIGEST.

1887.

SURGERY.

FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

The Sphenometer—A New Instrument of Precision in Bone-Surgery.

DR. MILTON JOSIAH ROBERTS gives the following description in the *New York Medical Journal:*

The complexity of the quantitative questions which the surgeon interested in the study and correction of bodily deformities is forced to practically consider is so great that any attempt to reduce observed quantities to definite terms by means of instruments of precision should meet with hearty support. I say by means of instruments of precision, for it is impossible to accurately estimate by our unaided senses such quantities as lengths, diameters, angles, curvatures, weight, and strength, all of which the orthopædic surgeon is constantly compelled to consider.

This morning I received a new instrument of precision made for me by Mr. F. Krodel, of this city. I have brought it with me to-day, thinking you would be interested in knowing about it. Given a bone of known diameter and degree of aberration, this instrument will accurately measure the base of the wedge necessary to be removed in order to correct the deformity.

Sphenometer (*σφην*, a wedge; *μέτρον*, a measure), meaning wedge measurer, is therefore the name which the instrument will bear.

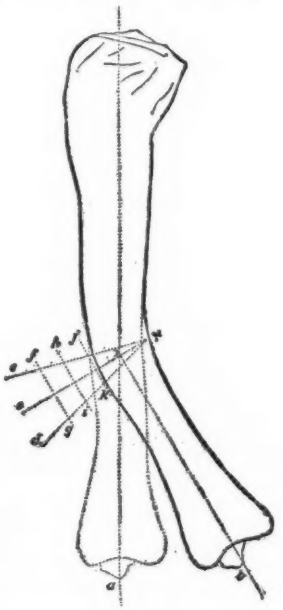


FIG. 1.

To illustrate the practical application of this instrument to bone-surgery, let

us suppose that we have an anterior curvature of the tibia which we wish to correct, such as is diagrammatically represented in Fig. 1. The first step to be taken is to determine, by means of a protractor, the articular goniometer, or the epipedometer, the exact extent in degrees of the aberration. This, we will say, we find to be an angle of 30°, represented in Fig. 1 by the lines *a*, *o*, *b*. Cutting down upon the bone at the site of its greatest deformity, we determine its diameter in the plane of the dotted line, *e*, *x*, by means of a pair of calipers. This, we will say, we find to be 16 mm. We are now in possession of the two definite quantities necessary to be known in order to make use of the sphenometer to measure the base of the wedge necessary to be removed to correct the deformity. These definite quantities are the degree of deformity and the diameter of the bone at the site of operation.

Taking the sphenometer, Fig. 2, we first set the lateral arms of the instrument, all four of which are of the same length, so as to inclose the angle of aberration. This is done by placing the inner edge of the lateral shaft over which the curved graduated arc passes so that it coincides with the line indicating the desired number of degrees on the arc. (Fig. 2 represents the spenometer set at 45°.) The angle *a*, *o*, *b*, Fig. 1, is the angle of aberration in our hypothetical example. The sides of the wedged-shaped piece of bone to be removed to correct this angle must, therefore, be inclined to each other, so as to inclose an angle of equal extent to that of the deformity to be corrected—viz., 30°. (See Fig. 1, *c*, *x*, *d*.) These two angles, *a*, *o*, *b* and *c*, *x*, *d*, are therefore equal. The angle of aberration having been determined, it will be found that the dimension of the base of the wedge to be removed to correct it depends entirely upon the diameter of the bone at the site of operation. This is clearly shown by the difference in the length of the dotted lines, *j k*, *h i*, *f g*, inclosed by the lines *c*, *e*, *d*, placed successively at greater distances from *x*.

Upon the central arm of the sphenometer, which is graduated in millimetres, there also slides at right angles to it a bar also graduated in millimetres. Now

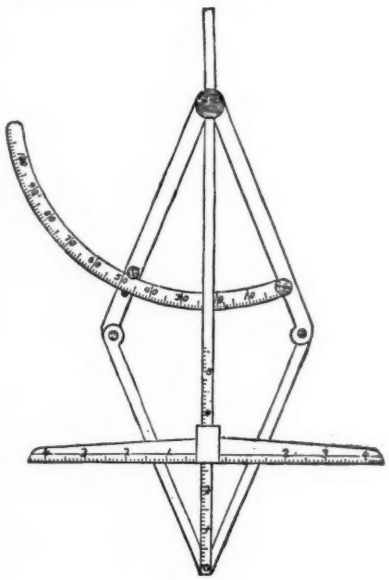


FIG. 2.

for the measurement of the dimension of the wedge to be removed for the correction of the deformity in question. It will be remembered that the sphenometer is set with its lateral arms inclined to each other at an angle of 30°, which is the extent of the deformity to be corrected. The graduated bar at right angles to the central shaft is moved along until the diameter of the bone at the site of operation has been measured off. (In Fig. 2, 27 mm. have been measured off on the central arm

of the sphenometer.) We can now read off from the graduated bar, which passes over the lateral limbs of the instrument, the dimension in millimetres of the base of the wedge necessary to be removed in order to correct the deformity. (In Fig. 2 the base of the wedge indicated by the sphenometer is 20 mm., 10 mm. on each side of the central arm.) With a deformity of 30° and a bone of 16 mm. in diameter, we find by the use of the sphenometer that the base of the wedge to be removed measures 8 mm. Eight mm. are therefore marked off on the convex surface of the bone. Selecting an imaginary point on the opposite side of the bone midway between the millimetre markings on the convex side, the bone is cut directly through in the direction of the *c x*, Fig. 1. The second section is begun 8 mm. away from the first on the convex side of the bone, but the direction of the cut is such as to reach the opposite side of the bone at the same point as in the first section, as indicated by the dotted line *d x*. This wedge having been removed, and the distal end of the limb so placed as to coaptate the two cut surfaces of bone, it will be found that the deformity has been completely and perfectly reduced, as shown by the dotted lines indicating the contour of the bone, Fig. 1.

The operation of dividing the bone as herein described can not be performed upon the living subject with any of the instruments commonly used by surgeons on account of their cutting the soft parts which surround the bone. By the use of the electro-osteotome carrying a circular saw of appropriate size, and the peculiar form of protective retractor which I have devised, the operation is rapidly and easily performed, and is one of the safest and most satisfactory in the range of bone surgery.

It will thus be seen that we not only have the means now placed at our disposal of accurately measuring the extent of bodily deformities, but by the use of this instrument many of them may be reduced by operative procedures with mathematical precision.

Fracture of the Ulna in its Upper Third Combined with Dislocation of the Head of the Radius.

Dr. Hans Doerfler, of Nuremberg, concludes from the study of nineteen cases, that direct violence alone less frequently occasions it, than combined violence, as exercised by a fall, the proportion being five to eleven. The greater number of cases occurred between the ages of 3 and 15, all others after the 35th year.

He believes that both injuries occur simultaneously, but that the fracture is primary and the dislocation of the radius secondary. Luxation of the radius cannot occur if the ulna be fractured below its upper third.

These deductions are based on experiments performed on dead bodies.

The symptoms of the injury are given as follows: Inspection reveals an angle outlined by the contour of the soft parts of the dorsal aspect of the forearm. The elbow joint shows a well-marked bulging either towards the front or laterally and anteriorly or posteriorly combined. This prominence, caused by the capitulum radii, moves when pronation and supination are performed. The cirumference of the injured joint is increased from $2\frac{1}{2}$ to 4 cm. On the posterior aspect three points can be made out, with the help of which a triangle may be constructed, having as its apex, the point of fracture of the ulna, and, as its base, a line drawn from the olecranon to the capitulum radii. This line passes directly over

the external condyle of the humerus in its middle. The injured arm appears shortened to the extent of 1½ cm. The dislocation of the fragments depends upon the direction of the violence; the lower fragment remaining parallel to the radius in all cases, the upper one varying in position. The fore-arm is generally found half flexed, and half pronated. The elbow is frequently much swollen. Crepitation is always present at the point of fracture. Flexion is interfered with, but extension is possible; supination is somewhat impeded. The ulna alone is shortened about 3 cm.

Complications of the injury are sometimes present and consist in subluxation of the styloid process of the ulna, paralysis of the musculo spiralis nerve—a frequent source of danger—compound fracture, or injury to the soft tissue, and fractures of the epicondyles or condyles of the humerus, the latter being a very rare occurrence.

The prognosis is quite favorable if the treatment is begun at once, or even within the first six weeks. After the first two months there is less hope of success on account of the capsular degeneration; a new capsule is soon formed wherever the head of the radius remains, so that function may, in a measure, return, if the fragments of the ulna unite. If the latter does not occur, the use of the hand is entirely lost. Arthritis deformans may occur in later years as a result of the injury. The prognosis or paralysis is unfavorable.

As regards treatment, it is of great importance to bear in mind the possibility of an existence of a luxation of the radius in all cases or ulnar fracture. After replacing the capitulum of the raidus with the help of extension and direct pressure from below, the arm is to be fixed in a half-supinated position and flexed at an acute angle at the elbow (so as to eliminate the action of the biceps) by means of a water-glass or starch bandage, to be left on for four or six weeks. The position of half-supination is maintained in order to prevent the new forming callus from again occasioning a displacement.

In old cases where replacement is impossible, resection of the capitulum radii is indicated. Osteopalinclasis of the ulna may become necessary in some cases. Compound fractures are to be antiseptically treated.—*Deut. Zeits. f. Chirurg.—Annals of Surgery.*

Quinine and Oil of Turpentine in Malignant Pustule.

Dr. Don. F. Rivas describes in *La Union de las Ciencias Médicas*, some cases of malignant pustule which were rapidly cured by the application of a paste composed of quinine and oil of turpentine. One of the cases was that of a shepherd, in whose flock the disease had manifested itself. He was stung by a mosquito on the forehead, and two hours afterwards the head and neck were extremely œdematous. The paste was applied, and the pain and swelling shortly diminished. A couple of days later a large quantity of sanguinolent fluid was discharged, and by the fourth day the man was quite well. Another shepherd of the same flock, who was similarly affected, made use of some of his colleague's paste without consulting a doctor, and was also cured in four days. A third case was that of a woman who had a malignant pustule on the hand, which was unaffected by various remedies which were applied, but on the application of the quinine and turpentine paste the severe pain ceased almost immediately, and the œdema rapidly diminished, the patient being quite restored to health in four days' time.—*Lancet.—Md. Medical Journal.*

The Treatment of Chronic Abscesses by Injections of an Ethereal Solution of Iodoform.

VERCHERE (*Rev. de Chir.*) reports twenty-three cases which were treated in this manner, and gives the following directions in regard to the operation: The solutions of iodoform should be of varying strength, one of five per cent. being used for large abscesses, and one of ten per cent. for small ones, while small superficial abscesses may be filled with a saturated solution. If the skin over the abscess is not affected, the needle of a hypodermic syringe is introduced in an oblique direction, so as to form a valvular fold; the pus is then drawn off, and the iodoform solution is injected. If, however, the skin over the abscess is quite thin, the pus is removed with an aspirator, and the opening made by the needle is sealed with collodion, after which a hypodermic syringe needle is inserted into the abscess cavity, and the injection is made as before. The object of these manœuvres is to prevent the ether from escaping through the puncture, as it at once tends to do on becoming volatilized. As the solution volatilizes, the iodoform is deposited over the entire inner surface of the abscess, and is slowly absorbed—so slowly in fact that the danger of poisoning by the drug is said to be very slight. The phenomena observed after an injection are, briefly, as follows: Rapid and sometimes excessive swelling results from the volatilization of the ether, but this soon subsides. If the skin over the abscess is healthy, the abscess cavity will speedily be replaced by indurated tissue, without the occurrence of any external change. If the skin is already inflamed, it will separate in a few days in the form of a yellowish slough, after which healing will occur by granulation, the resulting cicatrix being slight. The advantages alleged for this method of treatment are the perfect safety of the operation, the rapidity of the cure, the fact that the patient is not confined to his bed during the treatment, and the non-recurrence of the abscess.

[Our experience with iodoform and its preparations has always been most satisfactory. It seems to be the best material for dressings. The stimulating effect of the ether, added to that of the iodoform, should be very good indeed, if not too great.] A. H. P. L.

The Diagnosis of Renal Cancer.

DR. JOHN A. OCTERLONY thus writes in the *Jour. Am. Med. Ass.*:

Attention to the following points will generally establish the differential diagnosis:

Cancer of Stomach.	*Cancer of Kidney.*
1. Vomiting is the rule.	1. Generally absent.
2. Hæmatemesis, especially in the form of "coffee-grounds," very common.	2. Very rare.
3. Hæmaturia absent.	3. Hæmaturia generally present.
4. Tumor in epigastrium.	4. In one or the other flank.
5. Tumor small.	5. Tumor often large.
6. Tumor movable.	6. Generally fixed.
7. Tumor descends with diaphragm.	7. Does not descend with diaphragm.

Enlargement of spleen and renal cancer have been confounded (Luna). It is, of course, only when the left kidney is involved, that such a mistake is likely to be made. The two differ as follows:

Enlargement of Spleen.	*Renal Cancer.*
1. Absence of descending colon in front of tumor.	1. Descending colon may be found in front, vertically dividing the tumor in two lateral halves.
2. Border of tumor thin, rigid, smooth, but not rounded.	2. Border often irregular, nodulated, rounded, not thin.
3. Extends upward under the ribs.	3. Less so.
4. Direction of tumor downwards and inwards.	4. Downwards toward iliac fossa.
5. Very movable.	5. Generally almost or quite immovable.
6. History of malaria or leucocythæmia.	6. Absent.

Hydro-nephrosis and renal cancer also present certain resemblances and dissimilarities, which are brought out in the subjoined table :

Renal Cancer.	*Hydro-Nephrosis.*
1. Generally unilateral.	1. Generally unilateral.
2. Tumor hard or irregularly soft.	2. Soft.
3. Rarely and then imperfectly fluctuating.	3. Fluctuating.
4. Tumor permanent.	4. Liable to subside suddenly at times, with copious discharge of urine.
5. Tumor often of enormous size.	5. Not so.
6. Tumor generally fixed.	6. Movable.
7. Does not descend with diaphragm.	7. Descends with diaphragm.
8. Tumor of rapid growth.	8. More slow.
9. Cachexia.	9. Absent.

The differential diagnosis between cystic degeneration and cancer of the kidney is established by attention to the following points :

Cystic Degeneration.	*Cancer.*
1. Bilateral.	1. Generally unilateral.
2. Tumor may be large.	2. Tumor attains an enormous size ; much larger than is ever reached in cystic degeneration.
3. Tumor movable ; it rises and falls with the diaphragm.	3. Tumor stationary, and does not move with diaphragm.
4. Runs a rather slow course.	4. Runs a more rapid course.
5. No cachexia.	5. Cachexia sets in early, and is well marked.

Various uterine and ovarian enlargements have been confounded with renal cancer.

Malherbe (Soc.Anat.) relates a case in which cancer of the kidney was mistaken for a fibrous tumor of the uterus. And Dr. Greenhalgh (*St. Barthol. Hosp. Rep.*) gives the history of a patient in whom a tumor, supposed to be ovarian, acted as a complication in two pregnancies, and the propriety of removal was about to be entertained when the patient again became pregnant. She died without obvious cause three weeks after delivery at the full term, and the autopsy showed that the supposed ovarian tumor was really the left kidney in a very advanced stage of disease. It weighed twenty-seven pounds three ounces. Pregnancy and renal cancer were mistaken for one another when fœtal diagnosis was not so well understood and practiced as it is now, but at the present such an error could hardly be made or adhered to for any length of time by an intelligent and careful observer.

Besides the case of Lossen, which will be mentioned further on, it happened to Peaslee, of New York, and to Spiegelberg, of Breslau, to make the diagnosis of ovarian tumor, and to open the abdomen, when the disease proved to be renal cancer. Both patients died within three days.

The points involved in the differentiation between the two conditions are :

Renal Cancer.	*Ovarian Tumor.*
1. Generally unilateral.	1. Generally unilateral.
2. Develops from above.	2. Develops from below.
3. Tumor hard.	3. Soft.
4. Rarely fluctuating.	4. Generally fluctuating.
5. Irregular, nodulated.	5. Generally smooth.
6. Loop of intestines in front of tumor common. Dullness to the outside.	6. Intestines pushed aside, resonance on outside. Dullness central.
7. Aspiration brings pure blood and sometimes cancerous material at point of needle.	7. Aspiration brings away characteristic ovarian fluid.

Hepatic and renal tumors have not seldom been confounded. Rayer and Frerichs both mention cases in which renal cancer had been pronounced cancer of the liver. It is true the two may coexist, as was observed in one of my own patients ; but as a rule, attention to the following points will distinguish them :

Cancer of the liver lies much higher and generally presents an irregular nodulated border running more or less diagonally across the abdomen ; the in-

testines never lie in front of it. Jaundice is common, hæmaturia is rare. In renal cancer the tumor occupies a lower point, rises vertically and not so high; ascending colon generally lies in front of it. There is an appreciable interspace between the margin of the liver and the upper border of the renal tumor. Jaundice is very rare and hæmaturia common.

Many other diseases from which renal cancer is to be diagnosticated can be mentioned only in passing. Hydatids of kidney, perinephritis, psoas-abscess, enlargement of mesenteric glands, abdominal aneurism, ascites, distension of cæcum and ascending colon, etc.

The judicious employment of purgatives to empty the bowel, the practice of auscultation and percussion, the use of the aspirator, and attention to the history of the case, will generally suffice for a correct apprehension of the nature of the disease.—*Med. and Surg. Reporter.*

Ligature of Arteries.

Probably few subjects have afforded more occupation to the surgical mind than that of the ligature of arteries, and there seems a probability that it will continue to exercise the ingenuity of surgeons for many years to come. The discussion at a recent meeting of the Clinical Society of London, though it did not elicit the opinions of many surgeons, yielded at least a great variety of opinions, for no two speakers appeared to agree in all particulars. The material of which the ligature should be composed, the kind of knot to be used, whether the arterial coats should be divided, whether two ligatures should be employed and the artery divided when deligation is practised in the continuity of an artery—are all moot points. Mr. Thomas Smith advocated the employment of the clove hitch, as being less liable to slip or to cause ulceration of the artery than the ordinary reef knot, which has been in almost universal use of late years. The absence of any necessity for division of the internal coats of the artery seemed to be proved by the experimental researches of Messrs. Ballance and Edmunds. Kangaroo tendon does not yet seem to have established its reputation as a ligature to be relied upon in all cases. —*Md. Medical Journal.*

The Danger of Wounding the Diaphragm in Operations for Empyema.

M. LAGRANGE says (*Archives Générales de Médecine*), that wounding of the diaphragm in operating for empyema is an accident the conditions of which it is necessary to know in order to avoid. He holds that it is a mistaken idea to suppose that the accident is rare, and cites cases in which it occurred when the seventh intercostal space was opened, and Kirmisson on one occasion found the diaphragm as high as the sixth intercostal space. This anomalous position of the diaphragm may be caused by adherence of that structure to the lung, with retraction of the lung or retraction of the parietes of the thorax, with consequent exaggeration of curve of the diaphragm; and it is a mistake to suppose, as is stated in the text books, that pleural effusion is always accompanied by descent of the diaphragm. In many cases it is impossible to tell the exact position of the diaphragm, especially when it is intimately adherent to the thoracic walls. He advocates strongly that the operation of opening the pleura for the evacuation of pus should never be performed lower than the fifth intercostal space. Cases are recorded where the diaphragm has been wounded, and even the abdominal cavity opened and some of the contained

viscera incised. At the Montreal General Hospital it has been the custom of late to open the pleural cavity low down, not uncommonly in the eighth and ninth spaces. I myself have frequently done this, and without any untoward result. The diaphragm can always be felt through the incision. It is a good plan, and one which I have always adopted, after cutting through the tissues down to the pleura, to use a dressing forceps, if nothing but pleura intervenes it is easily perforated, and pus immediately exudes; but if diaphragm be present, the forceps cannot be pushed through it without the exercise of considerable force, and the condition may be recognized before harm is done. The value of a low opening is very great, because we thus thoroughly empty the pleural cavity and run no risk of leaving the narrow posterior portion filled with pus. If the opening be made high up, this cavity cannot be thoroughly evacuated without washing out with some fluid, a proceeding which always complicates the operation, may introduce septic matter, and retards healing.—*Canada Med. and Surg. Jour.*

The Indications of Resection in Gunshot Wounds of Joints.

The following conclusions are given at the end of a paper by Dr. SCHUCHARDT, of Metz, on "Indications at the Present Day on Articular Resections, both Primary and Secondary, after Gunshot Injury" (*Deutsche Zeitschrift für Chirurgie*):

1. The resections of joints that were performed for gun-shot injury before the era of antiseptic treatment, gave very unsatisfactory results, with regard both to mortality and to the subsequent functional capacity of the limb.

2. Formerly primary resection gave better results than secondary resection with regard both to the recovery of the patient and to the restoration of the function of the injured limb.

3. In consequence of the bad results of articular resection in military practice, the most experienced army surgeons of former times were led to perform an expectant or strictly conservative plan of treatment.

4. Since the introduction of the antiseptic method of dealing with open wounds, the indications for resection have become reduced, and the prospects of expectant treatment considerably improved.

5. Even when operative treatment is necessary, total resection of a joint is not indicated except when both articular surfaces have been injured over a considerable extent. In most cases of articular gunshot injury, simple arthrotomy will suffice, the bullet and any osseous fragments being extracted, and joint washed out and drained.

6. Free exposure of the interior of the wound is not indicated, except in cases of very extensive injury of the soft parts and when the wound is dirty. The presence of a bullet or of any other foreign body in the joint does not necessitate a free primary incision into the articular cavity, when the wound is small and the external conditions are favorable. In most cases cure will be attained without any serious impairment of the function of the limb, by simple antiseptic occlusion.

7. Secondary resection is indicated when expectant treatment has not had the desired result, and should be practiced without delay whenever the wound presents an abnormal appearance, and the healing process has been interrupted.

8. The duration of treatment in aseptic cases is a little shorter after primary than after secondary resection; but the difference is not of such a degree as to

justify rejection of conservative or expectant treatment on the field of battle.

9. Theoretically the dangers of a fatal result are less in the primary than in the secondary operation. A comparison in this respect, however, is not quite fair, as the secondary resection is performed only when expectant treatment has failed; and to every single case of secondary resection there are many cases that have been treated successfully by antiseptic occlusion.

10. The functional results depend, in the first place, on the amount of bone that has been removed, and in the second place, on the kind of after treatment.

11. In the knee and ankle, ankylosis, or even a stump after amputation, is to be preferred to a moveable joint.

12. Transportation is more unfavorable to the patient after resection than after expectant treatment, For this reason and that of the large number of wounded after any important engagement, and also of the difficulty of performing under such conditions an aseptic subperiosteal resection, it is necessary to avoid, if possible, any recourse on the field to operations of this kind.

A Few Observations on the Combined Use of Cocaine with Lanoline.

Dr. Ernest Wende (*St. Louis Medical and Surgical Journal*):

Having experimented more or less with lanoline, the new basis for ointments recently introduced into therapeutics by Prof. Liebreich, of Berlin, I found that, owing to its non-irritating properties, to its rapid absorption, and retention by the skin, cocaine could advantageously be combined with it for the treatment of certain disorders. In burns and scalds, I found the local treatment with a lanoline-cocaine ointment very satisfactory. It speedily overcomes the agonizing pain. It is at once soothing and protective. One of the formulæ which I have used for the purpose has been: ℞. Cocaine mur., 1.00; lanoline, 24.00; thickly spread upon a piece of soft linen or cambric.

Should a more cooling application be desired, which is often so grateful to the sensitive condition in the first and second degrees of Dupuytren's classification of burns, then an addition of water is requisite, the cooling properties depending upon the capability of lanoline to absorb water; and for this means it is certainly the base *par excellence*. ℞. Cocaine mur., 2.00; aquæ destill; lanolini, āā, 17.00; cetacei, 4.00. Or, probably still better, is a method which I have recently adopted, that is by first painting the painful surface with two per cent. solution of cocaine to be immediately followed by a dressing of: ℞. Acidi carbolici, 5.00; lanolini, 95.00; to be spread on lint or some soft cloth. This plan, besides being soothing and protective, has the additional advantage of being antiseptic, which is quite important if discharges are present.

Then, again, the intolerable itching which is often so marked, so annoying and troublesome in pruritus ani can be greatly alleviated on applying: ℞. Cocaine mur., 1.00–2.00; lanolini, 20.00. But as this irritation is generally symptomatic of some disorder as hæmorrhoids, eczema, fistulæ, oxyuris vermicularis. constipation, hepatic affections, etc., therefore, it is always essential, in order to treat such patient intelligently, with a hope of effecting a radical cure, that one first discover its real cause. Simply to allay the itching will not suffice.

Should the suffering be due to eczema, erythema or herpes, then an ointment of: ℞. Cocaine mur., 1.00; bismuthi

subnit., 2.00; lanolini, 20.00; will not only relieve, but will usually remove this almost unbearable disease.

I may further state, that the small excoriations which so frequently accompany this malady, heal readily on application of the following recipe: ℞. Argent. nitrat., 0.50–1.00; lanolini, 9.00.

Some Points in Minor Surgery at the Pennsylvania Hospital.

DR. THOMAS S. K. MORTON (*Medical News:* Shock is combated usually by warmth and stimulants. The former is applied by means of hot baths or water bags, generally the latter. The patient is surrounded by rubber bags filled with hot water. These we have had made for the purpose. They are round, from one and a half to two and a half feet long, from four to six inches in diameter, and have a filling-hole with a screw cap at one end, and a handle at the other. Atropia is freely used. Whiskey, ether, digitalis, aromatic spirits of ammonia, or, in desperate cases, aqua ammonia itself, are given. The injection of pure ammonia is, of course, always followed by local sloughing. Mustard, hot fomentations, large enemas, and drinks of warm fluids do good service. Previously warmed blankets are a great comfort as well as of benefit.

In the amputation of fingers and toes below the metacarpo- or tarso-phalangeal joints, rubber umbrella rings are used as tourniquets. The flaps are closely stitched, and, if there be any bleeding when the ring is taken off, a deep lateral stitch back of the line of incision on one or both sides will always effectually control it. We never put a ligature upon these articles, finding the above method amply secure, and, as far as our last few hundred such amputations show, unattended with disadvantage.

In exarticulations at the metarcarpo or tarso-phalangeal joints ligatures are applied if possible, but if the bleeding is obstinate, a deep stitch into the palm or sole can be made to control the appropriate vessel. These operations receive the usual house dressing and a palmar splint. They are, as a rule, not dressed for from ten days to two weeks, when solid and complete union is expected and usually found.

Catgut sutures are passed through finger- and toe-nails without fear, if by so doing crushed or cut parts can better be brought into shape, and also in operations for ingrowing nails.

We have saved many fingers, ears, and noses, which came in hanging by mere shreds of tissue, by promptly sewing them in place, and treating antiseptically. No opportunity has occurred by which to test the saving of those parts when entirely severed from the body.

Abrasions and brush burns are carefully cleansed and treated with either boracic acid ointment, or the standard house dressing.

The latter consists of: Protective; Lister gauze, wrung out of 1: 1000 $HgCl_2$ solution, and its skin surface thickly dusted with iodoform; a pad of dry 1: 1000 cotton, and moist 1: 1000 gauze bandages over all. We have found that Lister's boracic acid ointment makes up better if wax be substituted for the paraffine of his formula. Our receipt is: boracic acid and yellow wax, each 1 part, cosmoline 4 parts.

Ligatures are never applied except in the largest operative and accidental wounds.

Sutures run under or through the bleeding points effectually control them. No trouble is experienced in tying catgut sutures or ligatures, when the first tie of the knot is made as for a surgeon's

knot. Catgut is invariably used for these purposes. In treating some hundreds of scalp wounds, no matter how extensive, I have never applied a ligature, always finding that carefully placed sutures will stop all hemorrhage.

Stitches are placed very close together in all wounds; this presupposes proper drainage if it is necessary. If so, it is secured by a few strands of finest catgut, placed along the bottom, and brought out at one end of the wound.

Small or superficial wounds as rarely require drainage as ligature. Scalp wounds are not drained unless extensive. If the edges are much contused or torn, they are excised. Quite small wounds of the scalp or elsewhere, and sometimes larger ones, are, after antiseptic closure, covered in with a minute pad of bichloride cotton, and plastered down with either pure collodion or combinations of it with such drugs as evaporated tincture of benzoine (evap. fl. ℥ ij tr. benz. comp. to fl. ʒ ij, and make to fl. ℥ ij with collodion), iodoform (10 per cent.) salicylic acid, etc. Wounds too small for stitches are similarly treated. Large wounds, of course, receive the house dressing and possibly drainage.

Very tense hematomata are freely incised, the clot or fluid blood curetted out, any bleeding vessel stitched or tied if it can easily be found, and the whole sewn up with or without a drain, according to size, and dressed with some compression.

Slowly resolving hematomata or those in which suppuration is present or incipient, are manipulated in exactly the same way.

Punctured wounds are laid open, curetted, washed with 1 : 1000 $HgCl_2$ solution, and closed as above. If the bottom cannot be reached, a small drain should be carried as deep as possible, and the best hoped for.

Gunshot wounds are treated in much the same manner. If it can readily be done, the ball is extracted through the wound or by counter-opening. The entrance and exit (if there be one) wounds are excised, the track of the ball curetted thoroughly, a small gut drain carried all the way through, and the external wounds treated as simple incised ones.

Compound fractures, if the skin wound is small, are freely cut into, washed with 1 : 1000, curetted, accurately stitched, and, if extensive, drained with catgut.

Some of them are dressed more frequently than the actual wounds require in order that good position of the bones may be secured.

Wounds of joints are treated in precisely the same manner, save that, unless they are dirty, we are satisfied with thorough washing with 1:1000, and omit the curette. Cure in one dressing is here attempted and good function expected.

Poisoned wounds are also treated somewhat similarly, but the utmost care is taken to get to the bottom of the wound itself and into all ramifications and sinuses with the curette and strong antiseptic solution (1:500). If the wound is very bad and cellulitus present or threatening, continuous antiseptic irrigation (1:2000) is started as soon as the cleaning out is effected.

Large glass percolating jars, with glass stop-cocks, or other regulating device, suspended over the part give best satisfaction. Whilst thus employing irrigation any wounds should be well covered with protective, the whole part covered with lint, and the solution allowed to drip upon it.

Suppurating wounds might be classed as poison wounds, for the treatment is almost the same, namely: curette and

antiseptic solution (1:1000 or 1:500), excision of wound edges and, as usually, accurate approximation, with or without a drain as circumstances indicate.

Punctured, gunshot, suppurating, poison, and compound bone and joint wounds when thus dealt with, as a rule heal by primary intention and under but one dressing.

Felons, buboes, simple and suppurating cysts, inflamed bursæ, and large, small, and diffused eradicable abscesses are treated by exactly the same method and usually with like result.

Ineradicable abscesses, such as the psoas, are treated by this method as far as it can be made to go, and are then drained into an antiseptic dressing by means of a rubber drainage tube; through which they are from time to time washed out with antiptic solution. Care must be taken in so doing, however, whether it be these or other cavities, not to let any of the solution remain in. It should be displaced by a weaker solution or distilled water.

In cutting into abscesses, old hematomata, etc., a better result is secured by opening them from one side through sound tissue.

Simple cellulitis is treated like the complicated form as described above.

Burns, if small in area, or confined to an extremity, are treated by the regular antiseptic dressing. All easily removed, dead skin, etc., is taken away; the parts washed with 1:1000 bichloride solution, or iodoform sprinkled on (in part for its analgesic effect), then protective in narrow strips, and the dressing and cotton. Anæsthesia may be required to do this properly.

Extensive burns are covered in with boracic acid or oxide of zinc ointment, the surface of which is sprinkled with iodoform and, if there is much pain, smeared thinly with oleate of morphia. This dressing is covered in with cotton batting and a bandage or binder.

Just here it may be well to speak of sloughs, granulations, and skin-grafting, but what is said applies to all wounds as well as burns.

Under the antiseptic dressing sloughs are very slowly thrown off. It is our custom to excise them as soon as they become demarked. If properly done this causes scarcely any pain or bleeding and places the wound, days and perhaps, weeks nearer closure. By picking up the edge of the slough with a pair of forceps, and cutting with knife or scissors through its readily apparent junction with healthy tissue, it is easily accomplished. By this same process I have successfully, and without pain or hemorrhage, amputated even fingers and toes which we had attempted to save.

All forms of exuberant granulations are usually shaved off with a sharp knife. The moist bichloride dressing, applied without the intervention of protective, is found to produce ample stimulation, if such is indicated.

If skin grafting becomes necessary, a patch of thin skin is selected and made aseptic, as is also the granulating surface, if it is not so already. Almost microscopic pieces of the cleansed skin are then cut out by means of a purified needle and a pair of scissors, and planted among the granulations. Narrow strips of protective are applied, and upon this is placed either the "house dressing," or simply a pad of dry 1:1000 cotton. Any bichloride solution remaining about the parts should be washed off with distilled water before the grafts are cut and set, and strong solutions should not be used while the islets of epithelium are forming.

Leg ulcers, when small, are stimulated, if necessary, by scoring with a sharp knife, nitrate of silver stick, etc.; dusted

with iodoform ; accurately fitted with a piece of protective, and a gauze dressing put on with a firm roller. If they are large, and have callous edges, these latter are trimmed off, the sore curetted, perhaps straps applied after the iodoform and protective, and then the same dressing. By this method they can always be kept perfectly sweet and clean ; the discharge is but slight, and the pain still less. If the ulcers are very irritable, and will not bear the gauze dressing boracic acid ointment is substituted for it.

Those painful, non-ulcerative conditions of the legs so often met with behave excellently under one or the other of the above dressings.

In such regions where it is impossible to apply or retain a regular dressing, great pains are taken in the cleansing before and after an operation, and iodoform in conjunction with frequent corrosive sublimate irrigations is freely used afterward. Especially are these applications valuable about the genito-urinary organs and rectum. In females after most operations thereabouts, the vagina is washed with 1:1000, and then *filled* with iodoform. Beyond an occasional irrigation of the external parts, nothing more need be done until the stitches—if they have not been of catgut—are ready for removal.

Chancroids heal wonderfully if kept buried in iodoform ; sometimes they are previously brushed over with acid nitrate of mercury, etc. No treatment is directed to hard chancres unless complicated.

Body parasites are destroyed with 1 : 500 corrosive sublimate solution. No unpleasant effects have been known to follow even the freest use of the solution in this way. If the ear has been invaded, it is syringed with that solution, and then filled with oleate of morphia, and a little wad of cotton put on top.

VENEREAL DISEASES.

Suction of Male Ureters.

Before attempting to excise a kidney for disease it is obviously of the highest importance to ascertain the working capacity of the opposite gland, for upon the power possessed by the latter of bearing double burden depends the advisability of the proposed nephrectomy. The only method in which data as to this point can be obtained is by collecting the secretion directly from the supposed healthy kidney without admixture of urine from the diseased organ. This may be accomplished by the use of an instrument for tapping the ureters described by MR. FENWICK in the *Lancet*, September 18, 1886. The principle of its action is a slight suction force, which is exerted upon the ureteral orifice by means of a catheter and a small india-rubber ball. Notwithstanding the normal bladder seldom or never thoroughly contracts, the smooth muscle-wall relaxes sluggishly after its expulsive effort is over. This relaxation, at the same time that it produces a partial vacuum, diminishes the sphincteric contraction of the ureteral orifices, and any urine which may collect in those passages is partially propelled by the *vis a tergo* of the muscle of the ureters, and partially sucked by gravity and this negative pressure into the bladder. The aspirator consists of a small elastic ball and an oval glass bottle, which can be fixed to the end of a specially curved catheter, which latter is furnished with an elongated laterally placed eye. There are two catheters, one for each ureter. The bladder is first emptied and the catheter introduced. When it has fully entered it is rotated over, and at the same time steadied by the finger and thumb to the right or the left, according as the right or the left ureter is to be

engaged. The laterally placed eye will now be exactly over the urethral orifice, for the angle of the catheter is the same as the normal angle which the outer side of the trigone builds with the long axis of the urethra. Pressure of the right hand upon the elastic ball empties it of its air, and its stems is then affixed to the end of the catheter and the ball gradually released; the air in the catheter is correspondingly exhausted, and the urethral orifice is sucked into the eye of the catheter, where it can be maintained by careful management of the ball or by continual counter-pressure of the finger in the rectum. In ten minutes sufficient urine will have collected in the catheter, for it rarely enters the glass bottle, to admit of examination. Mr. Fenwick states that whilst this mode of procedure is not infallible, it has rendered him great assistance in determining the health or disease of one kidney in cases where an operation for the removal of the other has been proposed.

[There is one element of danger in this suggestion, and that is the possibility of setting up disease in the healthy kidney by reflex action after the introduction of the foreign body (catheter) into the urethral orifice. While it is highly commendable to alleviate suffering and prolong life by almost all kinds of means, it is nevertheless our province also to consider whether some of these means may not ultimately result in effects worse than those for the relief of which they were employed.]

A. H. P. L.

Resorcin in the Treatment of Venereal Warts and Condylomata

Is employed by Dr. CÆSAR BOECK, of Christiania. After clipping off the warts by scissors, or curettes, a four or five per cent. watery solution of resorcin is applied several times a day by saturating compresses. Thus recurrence is avoided. On old endurated papillomata with a broad base, the writer applied resorcin in powder form, mixed with a little sugar or bismuth or boric acid. In using such a powder it is well to bear in mind the varying degree of tolerance to resorcin in individuals, and it is best to see the patients each day. If the powder is not well borne the use of a solution, as above given, for several weeks usually leads to the desired result.—*Weekly Medical Review.*

Phimosis with Exaggerated Symptoms.

DR. T. M. HOLMES thus writes in the *Atlanta M. and S. Journal:*

Some months ago I was called to see a mulatto boy about five years of age, who had been suffering for several days from profuse diarrhœal discharges and frequent micturition. He was very much reduced in flesh; his features were pinched, and his skin was dry and harsh. His eyes were of a smoky hue and he was almost blind. He also had a papular eruption from the crown of his head to the soles of his feet, with a serous discharge not unlike that of eczema. There was more or less pain in the region of the bladder all the while, which was greatly intensified by the accumulation of a small amount of urine is this viscus. When this occurred he would run the floor, compressing his abdomen with his hands, and cry in such a manner as to enlist the sympathy of all lookers-on. He had been losing his vision for several weeks and growing very nervous.

What could be the exciting cause of this amaurosis, this diseased skin and nervous phenomena? I sought to discover it, which resulted in finding an almost complete phimosis and partially closed meatus.

The diarrhœa was successfully treated, but with no abatement of the other symptoms. It was evident to my mind that the patient was suffering from a severe nervous irritability, the result of the phimosis, and a slow uræmic poisoning, the solid constituents of the urine having been re-absorbed from the retained urine in the bladder. I first sought to relieve the patient by dilatation, which failed to give the necessary relief on account of the condition of the meatus. I therefore performed circumcision, with the assistance of Mr. George Glover. The result was a complete relief and a disappearance of all the above symptoms. The boy is now in fine health.

DISEASES OF THE EYE AND EAR.

On Purulent Ophthalmia and its Treatment by Hot Water Application.

In the *Archives of Ophthalmology*, Dr. A. G. Heyl gives a résumé on the present knowledge of that form of conjunctivitis which is called gonorrheal in the adult and conjunctivitis neonatorum in the infant, and which is now considered to be due to the gonococcus of Neisser, the double coccus.

Heyl states that this coccus only attacks the cylindrical epithelium of the conjunctiva (that is, the epithelium of the palpebral conjunctiva). The growth of the coccus depends on the age of the epithelial cell. He describes this growth in the following manner: The coccus finds its way into the conjunctival sac, lays hold of the cylindrical epithelium, disintegrates it, and then finds its way into the sub-epithelial tissue; at this stage, it ceases to grow; bye and bye the destroyed epithelia have been replaced by new cells, and as soon as this happens, the propagation begins again, until the new cells have been destroyed. And thus the process goes on. In other words, cells in the early stage of development, furnish no proper nutriment for the coccus. The coccus is, furthermore, said to be affected by the vitality of the cell, and as a reason for this statement, he gives the clinical fact, that gonorrheal ophthalmia in the adult is so much more virulent than is the conjunctivitis of the newly born.

Finally, the coccus does not remain confined to the palpebral conjunctiva, but finds its way into the lymph circulation, and is swept into regions where it finds no sustenance, but blocks up the nutrient channels. This fact, and according to Heyl, not the invasion of the corneal ephithelium, causes the formation of corneal ulcers, the disagreeable complication we have so often to deal with in these cases.

From the foregoing considerations, the application of nitrate of silver to the palpebral conjunctiva, as it has been in practice for many years, appears to be the most rational method of treatment, as it keeps the cells of the conjunctiva in a young state, constantly destroying the superficial and older ones. Thus the conditions are continually rendered unfavorable for the growth of the coccus. Antiseptic treatment, strictly speaking, has proven of no or little value.

Hot water applications were some ten or fifteen years ago considered an excellent mode of treatment of these cases, at least in Europe. They had empirically been found to be valuable. Heyl, by his deductions, comes now to the conclusion that hot applications act so beneficially by simply placing the tissues in a condition which is unfavorable to the growth of the coccus,

that is, they virtually do the same thing as do the application of nitrate of silver. They are especially valuable as soon as the cornea becomes cloudy.

From these considerations and his experience, Heyl believes that the best treatment for the gonorrheal ophthalmia is "the repeated applications of weak solution of nitrate of silver, carefully neutralized every three hours, with constant applications of hot water."

The hot water (as hot as the hand can comfortably bear it) is applied by means of a handful of absorbent cotton, dipped into it and applied to the closed eyelids.

[When the writer of this report some ten years ago treated his first case of conjunctivitis neonatorum on American soil, and made use, as he had been taught, of hot water applications, and to the benefit of the little sufferer, he was severely chided by one of our best authorities for doing so. He was, furthermore, told that in case of a malpractice suit, he could not get any expert to testify to the scientific correctness of such treatment. *Tempora mutantur*, and hot water is again put in its proper and well deserved position as a valuable therapautic agent, not only in gonorrheal conjunctivitis, but also in a number of other eye diseases. Not that the writer is prepared to simply subscribe to Heyl's statements, but he believes that in a certain proportion of cases of eye affections, hot water applications are as good as, or even better than cold applications.] —*The Weekly Medical Review.*

[The extreme opposition to the use of hot water in the treatment of the conjunctivæ has always seemed to us the result of a deep seated prejudice. We have frequently employed it in preference to cold. The hot water injection has also acted remarkably well in our experience in the treatment of gonorrhœa. It must be frequently employed.] A. H. P. L.

An Operation for the Relief of Tinnitus Aurium and Obscure Cases of Deafness.

Dr. Frank G. L. Connell, (*Medical Age.*) Isadore B., a laborer, æt. 40 years, came under my care in June last for the relief of a constant singing noise in his ears, which rendered him too deaf to hear conversation in any but a very high tone. He had suffered for years and had been treated thoroughly by means of the Pulitzer and other methods, but no treatment had thus far given any relief. He could not hear the ticking of a watch unless it was held against the ear, and both ears were alike deficient in usefulness. Examination with reflected light showed the membrane of the tympanum on each side slightly more opaque at the point where it blends with the manubrium of the malleus than I had ever noticed in such cases. On holding the nose and inflating the eustachian tube during the act of deglutition it was apparent that air passed readily through the tube to the cavity of the tympanum. As a means of relief in such cases I had in mind the operation of incision of the membranum tympani as first advocated by Sir Astley Cooper, but in this case I thought best to modify this operation and carry my incision around one side and end of the handle of the malleus so as to liberate almost entirely that organ from its attachment to the membranum tympani. My patient was then directed to hold his nose and blow, when the air was observed to stream through the incision, demonstrating that the section had been made complete, as Cooper advised. The disagreeable noises in his ears ceased at once, and his hearing became so acute that he had no trouble whatever in hearing my voice in ordinary tone.

FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

Notes on the Operative Closure of a Large Laryngeal Fistula.

DR. ROBERT ABBE reported a case in which he had successfully operated for the closure of a laryngeal fistula, and gave the following history :

In November, 1885, a man, aged forty-five, presented himself for treatment of an opening in the side of his larynx immediately above the vocal cords, into which the end of one's thumb could be thrust.

In the month of April preceding he had tripped while rising from his cobbler's bench with a shoemaker's knife in his hand, and had so stumbled that he fell upon the point of the knife, which was thrust well into the thyroid cartilage on the left side. He was carefully treated in the Bridgeport Hospital at once, a tracheal tube was inserted, and he said that it was worn for a month. The hole in the cartilage was just above the vocal cord attachment, and laryngeal inflammation probably followed and impaired his breathing. After another month an operation was performed to close the fistula by suturing, but was ineffectual. He then came to New York and was subjected to five more attempts at closure by his physician at home. The methods varied. Sometimes silver wire sutures were used, after paring the edges ; sometimes silk. Twice were the hare-lip pins and figure-of-eight suture used. But after each operation mucus and discharges burst the wound open and left him more desperate than before. The successive parings of skin and cartilage had resulted, with what ulcerations had occurred between times, in the sacrifice of a considerable portion of the left lateral half of the thyroid cartilage, the entire gap being nearly three-quarters of an inch, though the opening in the cartilage proper was five-eighths of an inch in diameter. The edges of the fistula were cicatricial, and induration extended half an inch beyond the opening. Through this great gap one could get a most extraordinary view of the vocal cords in action. The anterior ends were attached just within the lower edge of the fistula on the median side, and when at rest the cords fell flat on either side and were lost in the mucous membrane. On attempted phonation, they sprung into view and vibrated at an angle of 30° with the horizon, afterward falling back

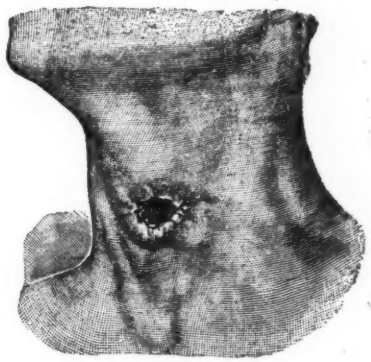


FIG. 1.

to nearly the horizontal position. This movement of the cords to assume this angle with the horizon when the patient was erect, the speaker had not found noticed in such authors as he had consulted. Attempts to speak or make audible sounds when the fistula was uncovered, were futile. All he could do was to produce a fizzing or buzzing note like the sound one might make by blowing through a single reed of a reed organ. When, however, a flat pad covered the fistula completely, he could phonate perfectly, though with a slightly husky tone. It was decided that by the following not very complicated plastic operation the fistula could be closed, if preliminary tracheotomy was done to

prevent expulsive efforts at coughing from blowing mucus and air through the sutures. The patient was etherized and tracheotomy done at the two upper rings. When the patient breathed well through the tube, the glottis was stopped through the fistula with a sponge attached to a string drawn out through the mouth.

The edges of the fistula were thoroughly pared. A broad elliptical space was then included between two incisions, *a b*, being somewhat wider than the fistula and extending obliquely downward on the patient's neck. A part of the included skin below the fistula was dissected up so as to make a flap hinged on its upper edge, which,

FIG. 2.

when turned over, more than covered the hole. The cuticle was then removed from the part of this surface not wanted to cover the hole, and the rest of the elliptical space made raw for the reception of the over-turned flap. The latter was then stitched over the fistula by two rows of fine continuous catgut—one row, on the edge of the orifice, tacking the surface of the flap at the circle of denudation; and the second, on the outer edge of the flap, fastening it to the outlying cellular tissue.

The skin on either side of the neck was then undermined and slid over the flap mentioned so as to meet directly over its centre. A lateral slash, one inch and three-quarters away, was necessary to relieve tension, and served to admit a drainage tube.

Antiseptic compresses were applied and the sponge was removed from the larynx by the mouth. The patient made a very comfortable recovery, with primary union throughout.

The tracheal tube was removed on the fifth day, and he was allowed to talk at the end of a week.

FIG. 3.

He left the hospital with a perfectly solid larynx and excellent phonation, which had been maintained.—*New York Medical Journal.*

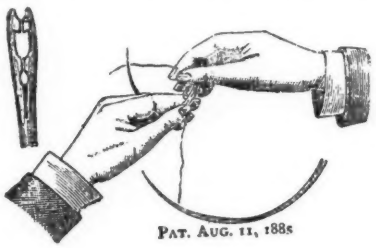
A New Surgeon's Needle.

We present our readers with an illustration of a needle that has long been wanted.

Every surgeon has no doubt been inconvenienced by the difficulty in threading needles of the ordinary type; this is particularly the case where twisted or braided silk is employed, requiring a steady hand and a keen eye to accomplish an object apparently very simple.

The needle illustrated obviates all difficulty found in threading, which can be accomplished with this needle in the simplest manner by pressing the thread down, as shown in the wood cut. It is so constructed that there is sufficient spring to allow the thread to enter the

eye without danger of cutting the thread. When once threaded the suture employed cannot be pulled out. The enlarged view shows the construction of the eye; below the large eye is a smaller one connected with the upper by a slot. The lower eye and slot form a yielding spring that allows the suture to enter easily; yet is sufficiently strong to close tightly after the thread entered the eye.



PAT. AUG. 11, 1885

In this manner a larger suture can be threaded into the eye than could be employed in an ordinary needle. Sutures should be selected to suit the size of needle employed. This needle, although embodying great improvements and advantages over the ordinary surgical needles now in the market, can be obtained at nearly the same price. We are convinced that a fair trial will result in their continued use.—*Illus. Med. Jour.*

The Corset Splint. A Ready and Efficient Apparatus for Fractures.

DR. JNO. THAD. JOHNSON (*Atlanta Medical and Surgical Journal*):

It may seem that there is already an over supply of material for splints; yet, with this multitude of material mentioned in text books, the practitioner is often at a loss for something that may be easily procured. One does not wish to rely upon the fanciful appliances of the instrument maker. Wooden splints, as made impromptu, are bungling, and worse things may be said of them—starch, dextrine, etc., have fallen into "innocuous desuetude." The disadvantages of plaster-of-Paris, in many instances, are apparent.

Wherever the patient may be, it is easy to obtain a few slender twigs, or reeds, or whalebone strip, or "white oak splits," such as are used in many sections for basket making.

It is an easy matter to run a number of seams through a piece of muslin, once folded; this to be of length and width to correspond with the injured limb. These seams must be from one-eighth to one inch apart, as necessary, thus making as many pockets or compartments of desired length and width as the limb may demand.

Through each of these pockets or sections we run a twig or splint. The twig may be willow, peach, apple, anything slender and pliable, and it should be stripped of bark.

Having thus constructed our corset material, it is easy to make of it an accurately fitting apparatus by first taking a pattern of the limb in thick paper, usually in two lateral sections. This pattern laid upon the material enables us to cut a closely fitting jacket or corset.

These lateral halves may be stitched or hinged together so the jacket may be easily removed and applied.

A layer of cotton wadding, cloth, or other suitable material must be placed between skin and splint. This need not be thick, but we must be careful of the edges of the apparatus.

In certain regions, near the wrist joint, as an instance, a thicker padding may be placed, for when the bone fragments are properly in position, this cushion, firmly pressed by splint and bandage, moulds itself to the inequalities of surface much better than the fancily carved and curved instruments offered us by excessively ingenious surgeons and instrument makers.

A roller bandage, bandage of Scultetus, separate bandage strips, or rubber bands, serve to retain the apparatus in place. To make the corset fit more perfectly, we might attach hooks-and-eyes, or lacing eyelets.

This corset splint is not proposed as a substitute for every other apparatus; some requirements it would fail to meet. But in most fractures of the extremities it will serve us either as a temporary device or permanent dressing. Among other advantages the facility with which it can be prepared and the general presence of its *ingredients* would especially recommend it to the attention of those who must provide apparatus impromptu from meagre resources.

A sheet of this material might be kept on hand for emergencies, and easily fitted to the case in hand. However, as it is so readily prepared, and as it might lose some of its pliability by age, we would generally prefer to make it when there is occasion for its use.

This material will afford a good substitute for the four short splints often used on the thigh, when a fracture of the femur is treated by weight and pulley.

It makes a good and ready support for hand and arm where the upper limb must be suspended in a sling. Liquid applications, hot or cold, may be made through it, an advantage not possessed by otherwise excellent apparatuses.

Instead of wood or whalebone, strips of tin, or zinc, or leather, or wire of different sizes, may meet special indications.

As constructed of the metal strips, it would give strength to plaster bandages and diminish bulk and weight. In such case, crinoline might answer a better purpose than thicker muslin. Made of this material it answers well for hand or fingers. Constructed of leather strips it gives support to certain injured joints, such as a sprained ankle, for instance. Indeed, when made of any of the last proposed strips, it answers fairly well even for elbow and shoulder. When it is desired to give increased strength, two or more layers made of very slender twigs may serve a better purpose than one thickness of larger growth. As announced in the outset, this is proposed, not as wonderful or magical in effects, but as giving efficient service where other splints cannot be procured.

It has been suggested to me that the idea or principle of this corset splint is similar to the strips of wood glued on kid or other skin, but there is nothing in common between the two. One is stiff, unyielding, and must be prepared by special skill, and is not always at hand. Liquid applications would injure it. The other is cheap, easily obtained, quickly prepared, accurate in fit, not injured by liquids, with other advantages unnecessary to mention.

[An excellent suggestion. Firmness, combined with elasticity, are great desiderata in splinting injured parts. Added to this, Dr. Johnson's splint is light in weight. It is also inexpensive. It would be very serviceable if applied with a roller bandage over extensive bruises, as it would make uniform, firm and elastic pressure.] A. H. P. L.

Operative Treatment of Fracture of the Patella.

The operative methods now in vogue, are:

1. Evacuation of articulative effusion by aspiration or puncture.
2. Tendon ligature (Volkmann).
3. Bone suture. Introduced by Lister in 1877, either open or subcutaneous, the most recent plan of which is that of Ceci.
4. Malgaigne's Hooks.
5. Morton's Method.

Dr. Conrad Brunner, of Zurich, has recently published an exhaustive and carefully written article intended to show the comparative treatment of fractures of the patella. The data from which he has formed his conclusions consists of detailed histories of forty-four cases treated by the former method and statistical tables containing the essential points in ninety cases of fracture treated by suture.

The operative method being a comparatively modern procedure the final results cannot be so fully learned as those of the older plan. However, the results, as far as can be obtained, show that the opening of a knee-joint to suture a patella is entirely unjustifiable in the great majority of cases. Brunner finds that the simple method gives practically as good results and hence concludes that there is no real necessity for the operation, for the primary object of treatment is in his opinion to restore the function of the limb and not to secure bony union. And in regard to this point the operative method cannot show any better results than those obtained after the older method. Since among the cases operated upon records exist of eight cases of suppuration, two requiring subsequent amputation of the thigh, nine resulted in anchylosis, and three deaths. It can scarcely be regarded as a method of treatment unattended by danger, and the danger thus incurred by the patient is not compensated for by a better functional result than can be obtained by a simpler method devoid of risk.

Chauvel has reported forty-three cases with severe arthritis in twenty; 120 amputations and three deaths.

According to the final results now on record it seems to be unwarrantable to transform a simple fracture into a compound one, to secure bony union which does not give the patient a better functional result than is obtained in a case of ligamentous uniting of the fragments. The claim that the duration of treatment is shortened is not supported by statistics.

The conclusions to be drawn from the above are that all cases of this injury should be treated by the "simple" method, except when a free communication with the fracture already exists or where a badly united fracture or useless limb demands a more effectual treatment.—*Boston Medical and Surgical Journal.*

Iron Alum as a Styptic—A New Method for Treating Wounds.

DAVID CHRISTIE, F. R. C. P., in the *Med. Press*, describes a new method of treating wounds as follows, viz:

For a considerable time past it has been an established fact that subcutaneous wounds heal quickest; it was afterwards ascertained that the reason why open wounds were slow to heal, was that germs entered them causing decomposition and the formation of pus. This theory led to another called the antiseptic system; its doctrine, keep away certain organisms and drain the wound, then inflammation and suppuration will be prevented. All this amounts to how a wound heals, and how to guard it from those things that prevent it healing. Now, I have reason to believe that I have found a way that takes advantage of all this information, but in addition to it, it assists the wound to heal from the moment it is employed. I discovered it when I was not looking for it at all; and this is how it happened: A little girl came to me, in whose hand a few days previously I had stitched a large deep wound which bled profusely every time it was dressed; to stop the hæmorrhage I

touched it with iron alum ; the bleeding ceased in a few seconds ; next day I examined it and found the wound very clean and healthy ; it subsequently healed in a very short time. A few days afterwards a lady came under my care to have a fatty tumor removed. She was rather anæmic, so I thought I could not be too careful to prevent loss of blood. I made an incision six inches in length down to the capsule, applied the iron alum ; about a teaspoonful of blood was lost ; enucleated the tumor and tied a small artery at the bottom of the wound, removed the coagulated blood, brought the parts together with a continuous suture, put a piece of surgeon's lint over it slightly moistened with glycerin and water, over this oiled silk, and over it padding and a bandage to press the surfaces accurately together. Next day I found the dressing slightly blackened by the iron, but no perceptible discharge or swelling ; dressed as before. On the third day I removed the sutures, and fourth day found it completely healed except the part occupied by the ligature. Next case was a man having a loose cartilage in the knee-joint larger than a garden bean. I made an incision in the usual way down to the ligament, an inch and a half in length, applied the styptic, only a few drops of blood escaping ; then cut through the ligament and removed the loose cartilage ; brought the wound together by a very narrow strip of adhesive plaster across the centre of it ; dressed as in the former case ; ordered dressing to be changed next day but not afterwards, and the limb to be kept at rest. This person lives sixteen miles from my residence, but I got a letter from him telling me that on that day week from the time that I performed the operation the wound was completely healed and the functions of the joint perfect. Dr. Hunter, of Ramelton, assisted me at both operations and knows all about them.

The last case I will refer to is that of a young man who received a deep lacerated wound between the metatarsal bones of the first and second toe, coused by treading on a sharp piece of iron ; here was profuse arterial hæmorrhage, as the position would lead one to expect. I endeavored to stop it by applying a piece of iron alum, but failed, owing to the depth and shape of the wound. I then put a considerable quantity of powdered iron alum into and on it, tying over it some wadding, then the bleeding ceased. Next day I examined it, and with difficulty removed the dressing, as the effused blood had set like cement ; there was neither discharge, swelling, nor the slightest appearance of inflammation, and almost free from pain, so much so that on the third day he resumed his usual employment in the fields. This tore the wound open again ; I was obliged to put a suture in it, touched it with iron alum, and it was completely healed in about six days.

Then I thought I was in duty bound to investigate the matter as far as I could and bring it under the notice of others, who had more leisure and opportunities of doing so than I had. I began by trying the action of all the styptics on some fluid I had removed from a hydrocele ; most of them made it milky or creamy, the perchloride of iron gelatinous, but it would not adhere to the test tube. Having twice seen it act as an escharotic in scalp wounds, I gave myself no further trouble about it. A saturated solution of iron alum instantly converted it into a cheesy mass, firmly adherent to the test tube. This, after exposure to sun and air for a month,

has undergone no change, except contraction from evaporation. The iron alum added to the same fluid in a fœtid state instantly coagulated it and deodorized it as much as carbolic acid did. From all this it is evident that this medicine has a character entirely different from any other of its class, for although the most powerful coagulator of albumen, and antiseptic, yet it has no irritating or destructive action on the living tissues ; keeping this in view helps to explain its curative effect, and how it does exactly what is required, *i. e.*, stops hæmorrhage by coagulating the liquor sanguinis, at the same time rendering it antiseptic and at once ready to heal, and by its astringent action preventing exudation, congestion or inflammation. I can easily imagine how useful it may become, how in the battle field one surgeon could do the work of six, and do it more efficiently, and how the soldier, with his own hands, by it might save his own life ; how abdominal surgery might become simplified, where oozing from small blood-vessels and defective drainage is the chief danger. In short it does all that the Listerian system does, but it does far more, without trouble, expense, or risk. Ligatures, bandages, dressing, etc., are reduced to a minimum, healing expedited to an extent that to be believed must be seen.—*Medical Age.*

[Mr. Christie has certainly done surgery a service if his experience is reliable. The decidedly styptic action of the alum iron in connection with its antiseptic properties makes it invaluable. Its efficacy seems not to be enhanced by the production of coagula, as they appear to be easily removed, so as not to interfere with primary union. Mr. C., however, credits the antiseptic theory with more than it ever pretended when he says its object was to prevent inflammation, for that is essential to repair. Perhaps he meant excessive inflammation.] A. H. P. L.

The Antiseptic Treatment of Wounds.

At the close of an interesting article on this subject Surgeon-Major W. Gray calls attention to the fact that in a long series of cases the latter half were much more successful, and this greater success appears to coincide substantially with the disuse of water proof covering, and with the adoption of dryer and thicker absorbent dressing. Accurate adaptation of the flaps I regard as of great importance. My experience has taught me, too, that antiseptic applications direct to the wound are in many cases unnecessary. I allude especially to those cases where the tissues are perfectly healthy. Still they do no harm, and, by way of making "assurance doubly sure," may be employed in every instance. All I mean to convey, however, is that we can in a certain class of cases obtain as good results without as with them, provided we attend carefully to other precautions. I never under any circumstances use the spray. Moisture in any shape or form I look upon as one of the most fertile sources of failure. Our whole efforts should be directed to preserve both the wound and the dressing in the driest condition possible. The essentials, then, of my present procedure are cleanliness, infrequent dry dressing, free drainage, accurate adaptation of flaps and rest. Under the last mentioned, pressure by means of bandages may be included. To prevent putrefaction of bloody and serous discharge I prefer to have the dressing medicated with some unirritating stable material. Of all I have tried boracic acid or iodoform is decidedly the best. Lowering of the temperature by wet dressing, exposure, or cold applications will tend, I am

convinced, to delay or prevent union by first intention. During the progres of the case the thermometer is used morning and evening; if the temperature remains normal, or does not rise beyond 99.5° F. occasionally, all is going on well, and the original dressing need not be disturbed sooner than the ninth or tenth day. When removed the flaps will be found firmly united. The drainage-tube may now be withdrawn, its track gently syringed out with carbolic of sublimate lotion, a little iodoform introduced, and the stump redressed with oiled lint or with boric cotton, taking care to sprinkle either with iodoform. Some of the unsoiled boric cotton from the original dressing will do quite well enough. In case of fever always administer quinine, as the fever may be of malarial origin, and not traumatic. In more than one instance this has proved to be the case. The precaution I note here is, however, scarcely necessary, except in a climate where malaria prevails.—*Journal American Medical Association.*

A New "Cure for Cancer."

DR. VELLOSO lays claim to having cured several cases of epithelioma of the face and lips with the juice of alvelos (says the *Brit. Med. Jour.*), a plant which belongs to the family of Euphorbiaceæ. It acted as an irritant, and destroyed the diseased tissue, which was quickly replaced by healthy granulations. Of the three different kinds of alvelos (male, female, and wild), the second is considered the most efficacious. It is found in Pernambuco, and although the natives have employed the juice for some time, it has not come into extensive use on account of the severe pain which it causes. The best results were obtained with the juice in a concentrated solid form, and with the addition of vaseline or lanoline. This preparation should be applied with a brush to the affected part (previously washed with a solution of carbolic acid), which should then be left exposed to the air for at least an hour. It should afterwards be covered with lint. This treatment should, as a rule, be repeated every two or three days, and never more than once in twenty-four hours, as the pain of the application is severe. The treatment was more speedily successful when begun before ulceration had occurred.—*Medical Reporter.*

[We fail to see why these medical cancer remedies are still so persistently recommended. We have a remedy in the knife that is as absolutely under our control, and through it the disease, as the latter is within our reach, before general infection exists. Acetic acid has a special affinity for and destroys living pathological structures without affecting those that are normal, and yet it has not supplanted the knife, though it is not actually painful.] A. H. P. L.

Cocaine Already Displaced.

The *London Lancet* describes a new local anesthetic, which comes from Port Germain, in South Australia, and is described by Dr. JOHN REID. Drumine, the name of this alkaloid, is prepared from the milky juice of *euphorbia Drummondii*, and is claimed to differ from cocaine, inasmuch as it has only a purely sensory paralyzing effect, while cocaine acts both on the sensory and motor nerves. It was injected into the legs of cats, and caused a general dullness, and a marked impairment of all forms of sensibility. The anesthesia was most marked when it was placed on the tongue, nostrils or hand. It has no action on the pupil, and no constitutional effect is produced by small doses ternally. In quantities of four minims

of a four per cent. solution it has been successfully used in sciatica by subcutaneous injections. Experiments with the drug are as yet very imperfect, but a great future is predicted for it in nervous and cerebral diseases.—*Weekly Medical Review*

Radical Cure after Strangulated Hernia.

MR. BARLING showed a man aged 35, on whom he had operated for congenital inguinal hernia eighteen months ago to the Midland Medical Society. At the operation blood was found in the sac and walls of the intestine, in which there was also a slight laceration. After the strangulation was relieved a tunica vaginalis was made from the lower part of the sac, and the upper part was ligatured and left in the inguinal canal. Two short wire sutures were then passed through the pillars of the ring and walls of the inguinal canal; these were tightened up and cut short. The wound healed by first intention; the patient got up with a truss on in three weeks, and has since worn a truss, until a month ago, when he was instructed to discard it. At the present time there is no return of the hernia, and the external ring is tightly closed; the wire sutures can be felt *in situ*, the testicle feels normal, and slides easily in its tunica vaginalis.—*Med. and Surg. Reporter.*

The Custom of Applying Escharotics to Exuberant Granulations Condemned.

DR. H. SNOW, in *British Medical Journal:*

As the result of some twenty years' experience, I should like to be permitted to enter a strong protest against this time-honored practice, which I have long since abandoned, as unnecessary and barbarous. The surgeon who has recourse to it causes his patient more or less acute pain, amounting, in the case of extreme burns, to absolute agony, and the healing of the wound is in no way promoted; indeed, I have seen small ulcers made larger by the destruction of new tissues at their margin. Exuberant granulations simply indicate local vitality and a healthy process of repair; if severely let alone, the wound will heal quite as quickly, under suitable dressings, as after any amount of cauterizing, and I feel sure that no surgeon who has courage once to abandon an antiquated tradition still current in the schools, will ever recur to it.

[This accords with our own experience. Superabundant granulations disappear as the cicatrization of the skin draws toward the centre. We have repeatedly seen large masses of exuberant granulations starting from a broad base eventually drop off spontaneously from a narrow string-like pedicle, leaving but a slight healing orifice behind. This all without cauterization or stimulation.]

A. H. P. L.

Practical Surgical Hints.

In the *Edinburgh Medical Journal*, Prof. CHIENE makes the following suggestions:

In case of persistent epistaxis, plugging of the posterior nares should not be done until an attempt has been made to check the hemorrhage by firmly grasping the nose with finger and thumb, so as to prevent any air from passing through the cavity. By this means a clot may be formed, which, if not disturbed and moved by air forcibly rushing by it in the attempts of the patient to clear the nostril, may consolidate and arrest the hemorrhage.

On dividing the frenum in tongue-tie only a slight nick of the anterior edge with the scissors is needed. The finger nails should tear the remainder of the band.

Elongated uvula should be divided only after having grasped the apex and

drawing forward to a firm tension. Simply grasping the uvula and attempting to divide it *in situ* is not an easy matter.—*Weekly Medical Review.*

Suprapubic Lithotomy.

In an article on this subject in the *British Medical Journal*, the author offers the following conclusions:

1. The gradual and thorough dilatation of the bladder by the injection of some antiseptic fluid.

2. The introduction of a lithotrite, and the seizing and fixing of the stone in the blades.

3. The depression of the handle of the lithotrite so as to press the stone against the abdominal wall immediately above the pubes, in the middle line.

4. Cutting down through the abdominal wall, in the middle line, upon the pubes, and immediately above it, in the usual way, until the bladder is reached.

5. Depressing the handle of the lithotrite still more, so as to stretch the wall of the bladder over the stone, and make it prominent at the wound.

6. Incising the stretched bladder wall upon the stone, to a sufficient extent, in a direction downwards, and then protruding through the opening, the stone and blades of the lithotrite.

7. Gently opening the blades of the lithotrite and removing the stone, and in withdrawing the lithotrite, catching one end of an India-rubber catheter in its blades, and bringing it out through the urethral orifice, the other end of the catheter being left in the bladder.

8. Stitching the wound in the abdominal wall, and introducing a drainage tube at its lower end.

If the wound in the bladder wall be small, I think it is better not to stitch it, but if it be large, two or more catgut sutures should be inserted.

The dilatation of the rectum is not, in my opinion, required, and if employed only complicates the operation.

Advances in the Surgery of the Central Nervous System.

In introducing the subject, the author laid special weight on the fact that all the advantages, both scientific and operative, claimed in his paper were the results of lessons learned from experiments on monkeys. It had been said that monkeys were not quite like human beings, but this was not correct from a surgical standpoint. Time did not allow of any elaborate details, so the auther contented himself with a brief recapitulation of the chief facts of the case. He referred to (1) the preparation of the patient for the operation, which consisted in shaving the scalp, and then thoroughly cleansing the head; (2) anæsthesia—for this he preferred chloroform, previously giving subcutaneously a quarter of a grain of morphia; the morphia produced contraction of the arterioles of the brain, and there was consequently less oozing, and a less amount of chloroform sufficed; (3) strict Listerism, pure and simple—the spray was used and the usual gauze dressings; (4) the line of incision—instead of the old fashioned crucial flaps, a semilunar was advocated, as being easily displaced out of the way of the latter steps in the operation, as less likely to suffer from interference with the blood circulation, and therefore with the vitality of the flap; (5) the use of large trephines—it was so difficut to hit the exact spot, and yet so necessary to have ample room, that the old small trephines were comparatively useless; (6) McEwen's plan of replacing the bone—the bone after removal was preserved in hot carbolized sponges, cut up into small pieces and placed in the opening between the dura

mater and the scalp. The brain being exposed, the first question to decide was whether it bulged into the opening or not—normal brain, Mr. Horsely said, never bulges at first; if an operation lasted an hour or more, some bulging became evident. If the brain bulged at first, it was presumptive evidence of the presence of a tumor; a yellowish color and venous congestion were likewise suggestive points. The lesion being found, how was it to be treated? The use of the actual cautery led to secondary troubles, so he used a knife and excised what had to be removed, which must be all that was necessary, but not one bit more. There would doubtless be some considerable oozing at first; if so, a sponge should be pressed into the incision. The tumor or diseased part having been removed, it was desirable to close the wound as quickly and as accurately as possible; primary union of the skin flap was almost essential to success. Drainage was required for twenty-four hours only; if more serum collected, a small probe should be passed in to let it out, but a little tension did no harm, as it kept the brain matter in its place until cicatrization was complete. Hernia cerebri only occurred as the result of decomposition. Mr. Horsley then demonstrated his three patients; they had quite recovered from the operation, and were well enough to travel to Brighton and be exhibited to the meeting. The main clinical symptoms were epileptiform fits, two of the cases following injury, with subsequent scarring of the convolutions; the third case was one of tumor, which was accurately localized by the manner in which the fits invariably commenced.—*Lancet.*

Frog's Skin as Grafts.

Sometimes slowly healing wounds with feeble granulations are made to increase their activity in the direction of cicatrization by transplanting minute fragments of epidermal tissue containing some of the cells of the rete Malpighii on the healing surface. O. Petersen has successfully used the skin from the back of a frog. The slowly cicatrizing wound was situate on the back of the neck of a man and had resulted from excision of a malignant pustule. A piece of frog's skin the size of the thumb nail was washed in a two per cent. solution and placed upon blotting paper, when it was divided into two. The grafts were applied to the wound so that the blotting paper was interposed between them and the fixing plaster. Two days after the transplantation both fragments of epidermis were found to be adherent. Two days later a fresh grafting was made; the former grafts had become roseate. In a further period of forty-eight hours the pigmentation of the grafts had almost disappeared. The cicatrix resulting from this treatment was found to be of great softness and elasticity. Frog's skin as grafts has been recently employed at some of the London hospitals.—*Lancet.* —*Medical Age.*

[Mr. Petersen reported similar results in the *Gaz. Hebd. de Méd. et de Chir.*, of Nov. 13, 1885.] A. H. P. L.

Anomalies of the Tonsils.

Jurasz (*Rev. Mens. de Laryn.*):

1. *Tonsilla Pendula.* A young man, 18 years of age, had always had a nasal voice, but on inspecting the pharyngeal cavity nothing abnormal could be seen, but suddenly a tumor appeared from the depth of the larynx, which filled the entire throat. It was a grayish white in color, soft, globular, the size of a pullet's egg, and was attached to the deeper parts of the pharynx on the right side. It was removed with the ecraseur and a

careful examination showed its tonsillar nature.

2. *Tonsilla accessoria.* A lady, 30 years of age, with symptoms similar to the preceding. On rhinoscopic examination there was seen a tumor the size of a hazel-nut, with reddened and irregular surface. It was attached by a broad base above the edge of the right Eustachian tube, and the superior portion of the pharyngeal fold. It was removed by the galvanic loop, and examination showed its tonsillar nature.—*N. Y. Medical Times.*

VENEREAL DISEASES.

Treatment of Orchitis and Epididymitis.

There is such a diversity of opinion as to the best treatment of orchitis and epididymitis the result of acute gonorrhœa, that the results obtained by Mr. FREDERICK W. LOWNDES (*Lancet*) for the last eleven years in the Liverpool Lock Hospital, are of considerable importance. The plan practiced in this hospital is almost invariably that introduced by Mr. Furneaux Jordan, in 1869, namely, by painting the affected testicle with a strong solution of nitrate of silver (two drachms to the ounce), at the same time enforcing strict rest in bed, and supporting the inflamed organ upon a small pillow so as to prevent it hanging down. Mr. Lowndes has invariably employed the same treatment, and in eleven years has treated two hundred and sixty-nine cases. He has always found his plan highly successful. The acute pain often amounting to agony is soon subdued, and in the majority of cases the organ returns to its normal size in the course of a few days. Sometimes a second painting is necessary, but this then suffices. The same plan of treatment has also been used by him successfully in private practice. When the patient cannot be induced to take absolute rest in bed, and when the patients are compelled to follow their usual occupations, the recovery must obviously be slower, as it is not possible by suspensory bandages or by means of handkerchiefs, however skilfully applied, to insure such perfect rest as when the patient is lying in bed. While the rest is an important item in the treatment, it is not by itself sufficient to effect a cure. The immediate effects of the nitrate of silver in allaying the pain are most marked, though for obvious reasons the nitrate must act more powerfully while the organ is in a state of quiescence than when constantly active.—*Ther. Gazette.*

Sublimate Injections in Gonorrhœal Cystitis.

THE history of an obstinate case of gleet and cystitis is given in *El Dictamen*, by Señor GARCIA ANDRADAS, which, after being treated unsuccessfully by means of injections of nitrate of silver, yielded very quickly to injections of corrosive sublimate. The patient, who was a river fisherman, contracted gonorrhœa, which was treated for a month with balsams and astringent injections. The discharge then became serous, and exquisitely painful vesical tenesmus supervened, the calls to urinate being so frequent as to give the man no rest. An attempt to pass an instrument occasioned the greatest agony when it came in contact with the prostatic portion of the urethra. The diagnosis made was that of acute prostato-cystitis consequent on gonorrhœa, and so the local application of a sublimate solution appeared to be the most rational treatment, as it had in the author's hands proved very beneficial in cases of sub-acute cystitis, due to the same cause; but it was thought well to try first Guyon's treatment. With great difficulty,

owing to the extreme sensitiveness of the urethra, an elastic catheter was passed to the prostatic portion, and ten grammes (160 gtt.) of a one per cent. solution of nitrate of silver injected. A few minutes afterwards urine was passed with great pain, so a warm bath and an opiate were ordered, which gave only temporary relief, the opium having to be repeated at night. The next day the patient's condition was the same as it had been before the injection. Three or four days afterwards a similar injection was given, with no better result. Four days later, as there was no improvement, the use of sublimate injections was commenced. The catheter was passed as far as the prostate, and forty-five grammes of a two per mille solution of sublimate in warm water were injected. This the patient was compelled to retain for three minutes ; the subsequent micturition was very painful, but at night he was able to rest, and retained his urine for three hours. The next day the urine was less turbid, and it was voided less frequently. His condition continued to improve for three days, when a second sublimate injection was given of double the quantity of solution. This occasioned some pain, but it quickly passed off, and the patient was able to rest. In four days' time he requested to be discharged, as his urine was clear, and he had no pain on micturition. Thus, the author remarks, two injections sufficed to cure completely an affection usually most obnoxious to treatment of an ordinary kind.

The superiority of sublimate injections has shown itself in several cases of a somewhat analogous character in which he has employed it. These he proposes to publish and discuss on some future occasion.—*Lancet.*—*Therapeutic Gazette.*

A New Operation for Hypospadias.

Mr. T. N. Fitzgerald states in the *Australian Medical Journal* that after having tried most of the feasable and recognized operations for the relief of hypospadias, the results in most cases being disappointing, he conceived the idea that a subcutaneous opening could be made to simulate the size and shape as nearly as possible the natural urethra, the instrument not to crush but divide the structures and this opening kept patulous with some smooth, unabsorbent material, success might be possible. Accordingly he has carried out his plan in two instances, and in both with perfect success, and he reports tolerable full notes of one of these cases.

This was a child aged 8 years, in whom at first the sex was not easily discernible. Both testicles were high up in the canals at the interior rings and the scrotum flattened out. The diminutive penis was drawn down upon the perineum, and the rudimentary corpora cavernosa dificult to distinguish. The urethral opening was close to the scrotum, making this a case of penoscrotal hypospadias. Having carefully examined the case, Mr. Fitzgerald decided to free the penis by a careful dissection, and then attempted to form the urethra, raising the glans and making a free transverse incision, as recommended by Duplay. The strong fibrous bands which existed under the copora cavernosa and cura forming them were freely divided. After a little troublesome dissection the body of the diminutive organ was raised up and the lozenge incision brought together laterally by horse hair sutures. A wire stage was erected on the pubis, the little penis transfixed by a hare-lip pin, and fixed in position with fine silver wire. The case did remarkably well and in about six weeks was discharged with instructions

to return in six months to undergo the second operation, namely, the forming of the urethra.

On his second return, after nearly a year, chloroform having again been administered, he was placed in the lithotomy position and the second part of operation completed. The distance from the end of the penis to the urethral orifice was about two inches. The organ was put on the stretch in the vertical position, and a long, sharp tenotome introduced in a slight indentation where the urethral orifice in the normal state ought to have been, and gently pushed downwards and backwards to a site a little behind and to the side of the hypospadias opening. The channel thus made a vertical slit simulating the normal urethra much as possible.

A previously prepared glass rod, about the size of a number six English bougie, well oiled, was then passed down the newly made canal, and allowed to project just below and to the side of the lower opening. The penis was held upwards, and the glass rod fixed in position by the aid of a wire stage erected on the pelvis. The case after operation did very well. The urine ultimately being passed out of the artificial urethra, which became lined with mucous membrane, and a slight fistula which remained at the site of the hypospadias opening being readily cured by paring the edges and inserting a suture. Mr. Fitzgerald states that the boy is now perfectly well, and able to void all his water in a good stream by the new passage.

[It is not right to consider a case like this successful. In the first place, we doubt the formation of mucous membrane in the urethra. We have no warrant to suppose that such a thing would be possible. Nothing but scar tissue could result in such a case and this might be kept distended with glass rods or other suitable appliances. Still it is doubtful whether any means could be devised that would insure a urethral growth that would continue *parri passu* with that of the body. As age advances it is rational to expect such a case to have contraction as well as retraction of the urethra, at least relatively as compared with the growth of the rest of the organ.] A. H. P. L.

DISEASES OF THE EYE AND EAR.

Cold Applications in Eye Diseases. Practical Hints.

Dr. G. S. Munson, A. M. (*Albany Medical Annals*) :

A safe and good rule, which I have always followed in all forms of catarrhal inflammation of the eye, in which there existed a mucous or purulent secretion, is to make use of cold applications only so long as the warmth of the inflamed part is greater than that of the surrounding parts, as judged by my fingers laid gently on the burning lids. Cold, to be of benefit in a large percentage of cases, must be employed carefully and at intervals ; and only in very urgent cases, as in certain severe inflammations of the external portions of the visual organs, do continuous applications become absolutely necessary.

How then shall we make the application of cold to an eye ?

Much depends on our answer to this question, if we wish to obtain the beneficial results to which we have already alluded.

First. The water should be ice-cold as a rule, although when the temperature of the eye is not much above that of the surrounding tissues, the water may be a trifle more mild—what is commonly termed cool.

Second. In mild catarrhal inflammations, and such troubles as phlyctenulæ

in children, and also after touching granular lids with caustic, I have the patient sit or stand, as most convenient, by a penstock from which is running water, and in this manner douche the closed lids with water thrown against them by the hand. It is a mistaken idea, though quite prevalent, that the water should enter the eye itself, for plain water causes a swelling of the epithelium of the conjunctiva, besides carrying particles of dirt with it into the eye, either of which is manifestly injurious. It is the cold which the water carries that is the remedy, and not the water itself; therefore, always douche the closed lids.

Third. The length of time that the douching is continued varies with the degree of inflammation or irritation. If it is a superficial irritation, as caused by an application of zinc or alum to the lids, or when the disease is a simple mucous catarrhal inflammation, such as is commonly called a cold in the eyes, or, again, when the eyes are painful, tired, and feel as though there were particles of sand or dirt in them after prolonged close application, as in reading, sewing, etc., I find that douching three or four minutes, as many times a day, may suffice. I might add that I prefer that only the mass of water thrown by the hand against the lids should be the method employed, and that no cloths nor sponges be used. In the chronic and deep seated inflammations, it may be necessary to apply it for five minutes every half hour, my guide being the effect produced on the vascularity of the tissues, and the comfort and relief which these applications afford the patient. Like opium, it quiets pain and gives soothing relief, and when the unpleasant symptoms return again, like opium, another dose of the douche becomes necessary.

Fourth. In the deeper, acute and more severe forms of purulent ophthalmia, such as gonorrhoic, blennorrhoic, diphtheritic ophthalmia, and acute trachoma, the best effects of cold are obtained from the proper application of ice-cold compresses. These compresses, best made of three or four thicknesses of linen, should not be of larger size than sufficient to cover the swollen and burning lids, in order to abstract heat only from the parts which are inflamed. There should be a number of them; and they are best made cold by placing them on a block of ice. The lids should first be smeared with vaseline to prevent excoriation, and then, so long as the lids are hot and inflamed, the compresses should be applied and changed on the lids at first every few seconds. If the cold becomes appreciable or painful to the patient, it is best then to apply them less frequently, say one every two or three minutes. These applications in the severer forms of inflammation should be kept up continuously day and night, and in a few days you will have the pleasure of seeing your patient in every way much better, and what at first appeared a very formidable disease, and threatened the destruction of the eye, now largely a thing of the past, with the bright prospect of a sure, safe and speedy recovery.

DISEASES OF THE SKIN.

Etiology of Scleroderma.

Dr. J. E. Graham, in a contribution to the clinical study of scleroderma, published in the *Journal of Cutaneous and Venereal Diseases*, states it as his belief that it is quite improbable that such a general condition as scleroderma can be a purely local disease. He thinks that there exist doubtless, pathological conditions in the deeper organs which have so far escaped observation. The

two classes of diseases which suggest themselves as possible causes, or as being most likely to be more or less connected with this disease, are the trophoneuroses and various forms of rheumatism. Whilst the generally accepted opinion seems to be that scleroderma is a tropho-neurosis and that the true cause exists in the trophic nerve centres, a great difference exists between it and some trophic diseases, such as pseudohypertrophy, muscular paralysis, etc. In these diseases the lesion, in most of the cases, is either permanent or progressive in character, whereas in scleroderma recovery takes place sooner or later in many cases.

The author's opinion is that the disease is more nearly allied to the rheumatic affections, but does not mean to deny that there is also a close relation with the tropho-neuroses, more especially as the close relationships existing between rheumatic joint affections and trophic nerve troubles have been so clearly pointed out.—*St. Louis Medical and Surgical Journal.*

Epidemic of Whitlow by Contact.

DR. AUDRY reports in the *Lyon Médical* an epidemic of whitlow, which he regards as the result of contact. It occurred in a school, the first case being in a girl, aged 9½, who did not know the origin of her trouble. The other cases observed were members of her class in the school and the schoolmistress. In this connection it may be proper to state that the affection was of the superficial variety, limited to the skin, and not exclusively ungual. It was what is known in common parlance as "run-around" (*tourniole*). The seat of the trouble was always the right hand, and although the majority had the disease but on one finger, several had two or more fingers involved. The epidemic subsided about three months after its appearance in the first patient. The affected children were isolated as far as possible from the others. Taking all the facts into consideration, Dr. Audry regards this as a true epidemic, and he seems to have good grounds for his opinion.—*Ibid.*

Anchietea Salutaris.

The root of *Anchietea salutaris*, a violaceous plant, having a popular reputation in Brazil as a remedy in skin diseases, has been recommended as useful in syphilis (*Chemiker Zeitung*). The dose is 0.1 to 0.35 gm. of the powdered root daily, and the drug is also administered in the form of a syrup prepared from a tincture of the root. In consequence of the drug being used for syphilis and provoking a flow of saliva, it shares with some other substances the name of "vegetable mercury." Some years since Dr. Pecholdt called attention to the usefulness of the drug in skin affections. He administered the powdered root, commencing with 0.35 to 0.70 gm. three times a day, and gradually increasing the dose.

The first effects are drastic, but these pass off after a day or two. Dr. Pecholdt isolated from the root bark an alkaloid, which he considered to be the active principle, and named it "anchitine."

[There are such reliable means at hand for the treatment of syphilis, in the mercurials and the iodides, that the greatest care should be exercised in experimenting at the expense of the health of human beings entrusted to us. We have yet to learn of the first so-called "vegetable mercurial" having anything like a specific action in syphilis. Some of those that have been highly lauded acted simply as tonics when they did good.] A. H. P. L.

FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

Two Cases of False Joint Successfully Treated by the Bone-Plastic and Suture, with Experimental Notes.

DR. AUGUSTUS C. BERNAYS (*Medical Brief*):

CASE I.—E. H. L., aged twenty-nine, sustained simple oblique fracture of the middle of the humerus, in consequence of a fall from a rapidly moving street car. He was treated by his family physician, who put the fracture up in splints of strong pasteboard, which were held in position by means of roller bandages. The forearm was carried in a sling. Patient states that his physician was very attentive, and removed the dressings almost every day "to see how the fracture was getting along," and to see that it was "in good shape." He also states that he had considerable pain each time it was bandaged, but that he always felt easy some hours after the doctor had gone. In fact, he says there was very little swelling at any time and no pain except at the time of the dressing, and two or three hours afterwards. His general health and appetite were good all the time, and he seems to have had no fever.

After the lapse of eight weeks, his doctor, finding that the arm was still quite useless and that although there was considerable callus thrown out around the broken ends of the humerus, informed the patient of the fact that union had not taken place, and that he had what was called false joint or pseudarthrosis. The patient and his doctor then called on a prominent surgeon, and after consultation it was determined to try the effects of a severe friction of the fractured ends. This was done in the latter half of the month of August, about eleven weeks after the accident had happened. The rubbing together of the ends was done while the patient was etherized, and the arm was put up in a wooden splint over which a plaster of Paris bandage was rolled. Patient says that he had some pain for a few days, but after that felt comfortable. After six weeks, this splint was removed by the surgeon, and it was found that union had not taken place; the arm was just as useless as ever. The surgeon then proposed to try friction again, and at the same time, to drive some ivory pegs between and into the fractured ends. This was done in October, about eighteen weeks after the original injury. The same splint as before was put on, and the arm again put up in plaster of Paris. The pegs were left in the arm for one month; patient says they caused a little suppuration. One of them came out easily, the other required considerable force to be extracted. Patient showed the pegs to me, and one of them is quite rough, and I think it must have caused the formation of bone tissue in its immediate vicinity. After the pegs had been withdrawn, the little peg holes healed up rapidly. The bandage was allowed to remain a month longer. Twenty-six weeks after the injury, it was found that the arm was powerless and that the patient was in as bad a condition as ever. The surgeon then proposed wiring the ends of the bone together after having freshened them with saw and chisel. He said that this procedure was more dangerous and also that it might not be successful.

The patient being very much discouraged, went from one surgeon to another getting opinions, and also submitted to all sorts of quackery and treatment by cure-alls in the form of salves and liniments. He kept his arm splintered and was able to use his hand and fingers while his humerus was supported by the splints.

In this condition, about fifteen months after his fall, he came to consult me, and I succeeded in gaining his confidence to such a degree that he permitted me to perform the operation which had been proposed to him by the first surgeon.

I found the arm shortened one inch and a half, the fractured ends overriding one another in the manner shown below (fig. 1). The ends were grown

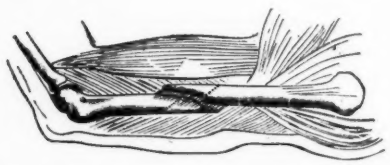


Fig. 1. The fractured ends are held together by fibrous bands. The dotted line indicates the direction of the saw cuts.

together by fibrous bands, and it was not possible to bend them so as to form a right angle with each other, although they permitted a limited excursion, the lower end being movable in all directions around the upper. The farthest excursion was possible in a lateral direction, in which the lower end of the humerus could be made to describe a segment of a circle about 90° to 100°, the false joint being the centre.

The patient was chloroformed, and I made a straight incision through one of the scars left by the ivory peg down the outer side of the arm. The incision was about four and a half inches in length; it began at the insertion of the deltoid muscle and extended downwards to within three inches of the epicondylus externus. The incision was carried down to the bone between the muscles along the intermuscular septum. The lower fragment was first entirely freed by denuding it of all periosteum for a distance of one and a half inches. I then sawed off a wedge shaped segment (similar to fig. 5) by means of two saw cuts which were made at exactly a right angle to one another, in a direction which was again at right angles to the oblique line of fracture. (See dotted line in fig. 1.)

This left a rectangular gutter obliquely across the lower end of the humerus. Next the upper end of the humerus was liberated by denuding it of its thickened periosteum with a Langenbeck's elevator. Two pieces were now sawed off from this end, the saw cuts being at right angles to one another in such a manner as to leave an oblique wedge shaped end which would exactly fit into the groove on the lower fragment. I now drilled two holes into opposite points of the ends, and passed a silver wire through them, which was fastened by twisting, the ends being left long enough to pass out of the wound. After the Esmarch bandage was removed and all hemorrhage had ceased, the wound being irrigated with a solution of carbolic acid, I introduced a drain-

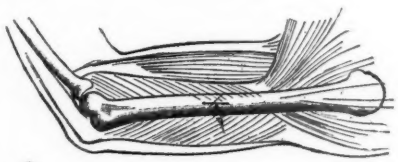


Fig. 2. The bones adapted after they had been sawed so as to fit. The wire suture is shown with the ends twisted.

age tube and united the wound by means of twelve very deep and numerous superficial silk sutures. The whole was put up into a carefully made, tight fitting sleeve of plaster of Paris, which was applied over a thick layer of carbolized gauze. The sleeve extended from the shoulder to the wrist, inclusive. The operation lasted one hour and ten minutes; the patient suffered no shock. His pulse was 80, temperature 99° F.; no pain at 8 P. M., the day of the operation.

I allowed the plaster sleeve to remain unopened for six days, there being no fever nor pain, and no swelling of the fingers. On the seventh day I opened the bandage by cutting out an oval fenestra, because a spot was visible on the outside of the plaster of Paris, which was due to some secretion of the wound. I found the wound healed by first intention, and only secreting through the drainage tube. The stitches were all removed, and the wound dressed daily with absorbent cotton. The drainage tube was permanently removed on the twelfth day, and the silver suture was taken out with considerable trouble after four weeks. It was surrounded by callus. All secretions stopped at the end of the fifth week. I allowed the plaster sleeve to remain on eight weeks in all. After its removal, I was much elated to find that firm union had taken place. The patient to-day, six and one-half years after the accident, has a useful arm, which is but little, if any, weaker than his left arm, although it is fully an inch and a quarter shorter.

CASE II.—Fred. V., twenty-four years of age, from Stanton, Ill., coal miner, received a simple fracture of the femur, an inch and a half above the middle,

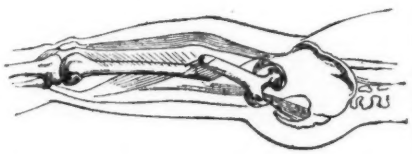


Fig 3. The false joint, held together by bands of tough connective tissue.

by a fall. He was treated by the local physicians with plaster of Paris dressings, and there was a failure of union. A surgeon from Litchfield, Ill., then sawed off the ends of the bones and again applied plaster of Paris dressings. The result was negative; union again failed to take place. From the patient's description, the plaster of Paris bandage only extended from just above the knee to about the region of the trochanters. It is evident that a dressing of this kind was entirely insufficient, and a union could not have been expected.

Ten months after the accident, the patient came to me, and the first Sunday morning in October, 1886, with the assistance of Dr. Ohmann-Dumesnil and Dr. Glancies and the senior class of the College of Physicians and Surgeons, I performed an operation in every way like the one above described. An exact conception of the condition of the fracture before and after the operation will be gained by a short study of the accompanying engraving (fig. 4). The operation was much

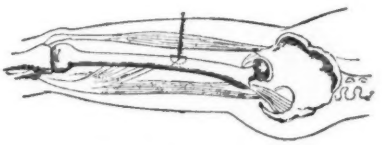


Fig. 4. The false joint has been resected. The ends are seen adapted. The wire suture is shown in position.

more difficult than the first one, on account of the much larger and deeper wound, which was necessary to liberate the fragments, they being bound together by tough scars, the result of a former operation. The first operator had made his incision straight through the middle of the quadriceps. Not wishing to make a new lesion, I was compelled to cut through in the same place. This was also partially the cause of the great difficulties I encountered in freeing the lower fragment, which had to be done at the bottom of a wound, four and a half or five inches deep. I employed a 1:1000 solution of corrosive sublimate in this operation, and also used gauze treated with the same antiseptic. The bone plastic was

performed in the same manner as in Case I. I used iron wire, instead of silver (fig. 4).

[A reference at this point is made to two cuts not given, showing a diagrammatic representation of the method which was employed in both cases to secure an accurate adaptation of the ends.]

The healing process was not as simple as in Case I. Free suppuration began on the tenth day, and continued for six weeks. I was compelled to cut a counter-opening through the posterior surface of the thigh, between the biceps and semi-membranous muscles. In spite of this suppuration, consolidation and perfect union took place. The patient left the hospital fourteen weeks after the operation.

I attribute the good result in both cases to the fact that, after the ends had been freshened, perfect rest was given to the injured parts by means of the plaster of Paris encasement, which was applied in so extensive a manner as to include the entire joints above and below the fractured bone. A further advantage of my method of operating, for which I may claim originality, is found in the bone plastic which I employ. *The figures will show that after the trimming of the ends of the bones and placing them into their new positions, the ends are just reversed.* The end which was anterior before the operation, is given the posterior position afterwards, and *vice versa*. The contractions of the muscles will, therefore, only aid in keeping the fragments together, instead of pulling them apart, as was the case before the plastic operation. The manner of fitting the ends together not only tends to prevent longitudinal dislocation, but also makes any lateral displacement almost impossible. From my experience in case II., I am led to conclude that the wire suture is not essential, since in that case the wire broke or rusted through about the seventh day, and could not have done much good.

New Operation for Fistula of the Hard Palate.

Dr. Clayton Parkhill (*Virginia Medical Monthly*) :

Fistula of the hard palate is a deformity which impairs speech, and food and drink pass through the opening into the nose. It may be congenital, traumatic, or carious. The ulcerative process may be either simple, or syphilitic.

The anatomy of the part may be briefly recalled. The horizontal plates of the superior maxillary and the palate bones uniting in the median line, form the bony roof of the month. Its soft covering consists of periosteum and mucous membrane, with an intervening layer of connective tissue. Between the superior maxillary bones and the palate bones exist the posterior palatine foramina. These transmit the descending palatine arteries, and the anterior palatine nerves. The vessel and nerve of each side respectively find further lodgment as they pass forward to supply the soft tissues in what is usually a groove, but sometimes a canal, situated at the line of junction of the hard palate and alveolus. Between the horizontal plates of the superior maxillæ, and just back of the incisor teeth, is located the anterior palatine foramen. This transmits the naso-palatine nerves, and permits of a free anastomosis between the sphenopalatine and the descending palatine arteries. Both vessels are branches of the internal maxillary artery. The anterior and naso-palatine nerves are branches of the superior maxillary division of the fifth through Mæckel's ganglion.

Pancoast devised an operation for the cure of palatal fistula. After paring the edges of the opening, he made two wedge-shaped flaps, as shown in Fig. 1,

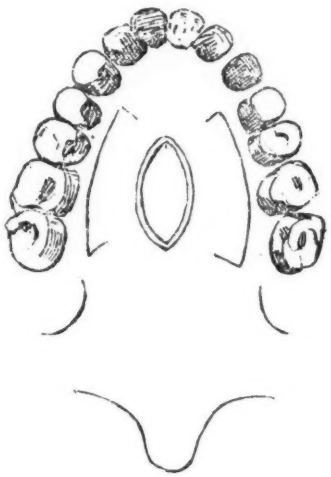


Fig. 1.

their bases being toward the alveolus. These he inverted and brought together in the fistulous orifice. So difficult did he find it, however, to retain them in position, that he was obliged to introduce a soft catheter into the nose and tie over it. The objections to this operation are—first, the small connections of the flaps for blood and nerve supply, and second, the difficulty of retaining the flaps in position.

In an able paper in the October number, 1868, of the *American Journal of Medical Sciences*, Dr. Whitehead, of Denver, Col., called attention to the operation of Von Langenbeck. After the preliminary paring of the edges, he makes an incision on either side parallel with the alveolus, as shown in Fig. 2. With blunt instruments he loosens all the soft tissues from the bone, and brings them together by sutures in the median line. The objections to it are—first, the difficulty of the operation, and second, the unnatural position into which the tissues must be drawn, necessarily causing tension on the sutures.

Dr. Parkhill's method may be described as follows: Chloroform should be selected as an anæsthetic in preference to ether. The vomiting which so frequently follows the administration of the latter would almost certainly cause the sutures to cut out. Several firm pillows should be thrust under the patient's shoulders as he lies on a low table, thus tilting the head far backward. By this means the blood will collect in the fauces and posterior nares,

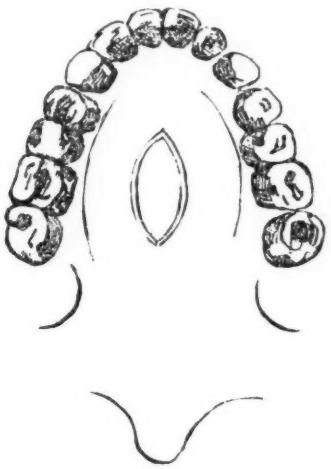


Fig. 2.

from which it can be emptied when necessary by turning the head. In this position the patient is neither obliged to swallow the blood, nor be strangled by it, while it is much more convenient for the operator than the sitting posture.

The mouth can best be kept open by means of a cork placed between the teeth, secured by a string, or possibly the mouth-gag of O'Dwyer. The tongue must be drawn out by a strong suture, and held by assistant. The edges of the opening can be pared by a small scalpel or straight bistoury. The

incisions for the flaps should be made as shown in Fig. 3, by a small, round bellied scalpel. Care should be taken to avoid, if possible, wounding the trunks of the descending palatine arteries. The flap pointing forward should be

Fig. 3.

elevated by a blunt edged instrument, similar in shape to the bone elevators found in all amputating cases. For separating the other flap an instrument having a round, blunt edge, the blade having an angle with its shaft similar to the common hoe, as shown in Fig. 4, will be found most applicable.

The greatest care must be exercised in elevating, not only the mucous and cellular tissues, but the periosteum, after the manner of Langenbeck. This distinguished operator has shown, by his successes in cleft-palate operations, that periosteum, so transplanted, will form new bone. These flaps, covering the fistula, are expected not only to close it with soft tissue, but to fill it up by a new bony formation. It will be observed that the bases of the flaps have an abundant blood and nerve supply, while probably little hemorrhage will result, owing to the tearing process employed in their separation. All the bleeding which occurs can be readily controlled by means of aqua pagliari, or Pancoast's styptic. It will be fouud that the flaps will cover the opening completely, as seen in Fig 5, and without the slightest tension. The sutures should be of either very fine silver wire, or iron-dyed black silk, The latter will be found easier of introduction. A curved needle in any ordinary holder will answer the purpose, the patient being in the position recommended. This part of the operation requires the greatest delicacy and skill. The opposite points of puncture should be in a slightly diagonal position, the inclination being towards the base of the flaps.

By this method, it will be observed, any swelling which takes place will not tighten the sutures. The flaps will swell forward from their respective bases, thus bringing the puncture points more nearly opposite, and avoiding tension.

No dressing is necessary. It is well, however, to stop the nostrils with bits of cotton, thus forcing the patient to breathe through his mouth.

Fig. 4.

The wound should be washed twice a day with some disinfectant solution. Its upper surface is efficiently reached by placing the tube of a fountain-syringe to the nostrils. Both secretory and excretory organs should be kept active ;

the food light, preferably fluid. Care must be taken that it does not come in contact with the wound. An excellent method of feeding the patient is by at-

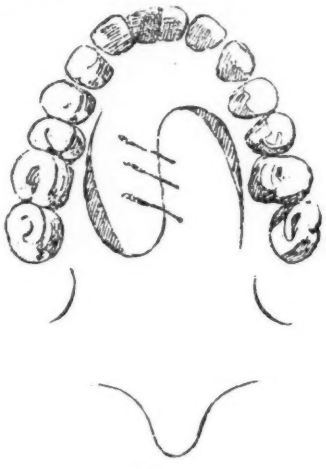


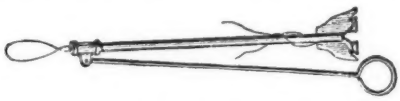
Fig. 5.

taching a large soft-rubber catheter to a piston-syringe. This catheter may be thrust sufficiently far down the throat so that no regurgitation will take place. The sutures should be left *in situ* until firm union has taken place beyond peradventure.

The arguments in favor of this, as compared with the other methods, are—first, there is an abundant blood and nerve supply to the flaps ; second, there is no tension, causing the sutures to cut out ; and third, it is the easiest of performance.

New Suture Twister.

The accompanying wood cut represents a new form of twister for wire sutures.



The old form and that of Sims had the disadvantage that the suture had frequently wound round the stem of the instrument, and was disengaged with difficulty. The ends of the suture wire being passed separately through the end of the tube on either side of the small cross-bar, and pushed on till they protrude at the top, are then doubled over, and slipped into slits on each side of flat-plate, which forms the handle, by which the tube is rotated; the wire with ring attached by collar to the end of tube being held by the other hand and used to direct the point of twister to the spot where the suture is to be tightened. This being twisted from above downwards is not hidden from view, and the exact amount of tension can thus be given to a nicety in drawing together a fistula, or open wound of any kind, beyond the reach of operator's fingers. I have found it most useful in Emmet's operation " Hystero-Tracheloraphy." It also forms a useful snare or miniature écraseur. (Dr. Alex. Duke, M. K. Q. C. P. I., Ex.Assist.-Master Rotunda, Gynæcologist, Steeven's Hospital, Dublin).—*New York Medical Journal.*

Taking Blood Directly from the Liver.

Dr. Haley read a paper before the last British Medical Association, in which, among other therapeutical procedures for the relief of congestion of the liver, he deals with the removing of blood directly from the liver by means of a trocar and cannula.

This process he calls " hepatic phlebotomy." He first undertook to show that it is impossible to draw blood directly from the liver by means of cups or leeches, and that as compared with the withdrawal of an equal amount of blood from the arm, the leeching or cupping process is, if anything inferior. Dr. Haley has long believed that the direct withdrawal of blood would be followed by great advantages in the case of hepatic engorgement, and at

last succeeded in obtaining the consent of a patient and friends to the operation, which briefly was as follows: The patient was anæsthetized, and the liver was pierced in its upper part from right to left with an eight inch trocar of the diameter of between a number 2 and 3 sized English catheter. The trocar was run in up to the hilt in the hope that in its passage it might wound sufficient vessels to yield a full stream of blood. On withdrawing the cannula an inch or two, a full stream flowed from its free orifice. Twenty ounces of blood were abstracted, a two inch square piece of sticking-plaster applied over the external wound, and the abdomen tightly bandaged in order to bring the abdominal wall into close contact with the capsule of the liver to prevent any chance of hemorrhage. The liver, from the day of the operation, decreased in size, and by means of copaiba, resin and tapping, the ascites and anasarca which had existed disappeared, and the patient made a complete recovery from what Dr. Haley and Dr. Walker had considered a perfectly hopeless state.

It would appear from this that the liver may be safely punctured, and with great benefit to the patient. The operation certainly commends itself, and if future experience prove it to be safe, we shall no doubt soon have it established as one of the standard and remedial measures for chronic congestive hypertrophy and engorgement of the liver.—*N. Y. Medical Journal.*

[We commend this procedure and all it teaches to those who view the operation of cardicentesis with so much dread. The above case is very instructive in that it shows what can be done in the direct withdrawal of blood. It is always very necessary, as has already been explained, to abstract sufficient blood to reduce the pressure within the depleted organ to a lower point than that of the surrounding parts, so as to avoid extravasation.] A. H. P. L.

A New Method of Excision of the Knee.

Before the Medical Society of London, Mr. HERBERT ALLINGHAM read a paper and showed cases of a new method of excision of the knee. The operation consists in making a vertical incision over the joint in front, beginning two or three inches above the patella, and prolonged over the patella down to the tubercle of the tibia. The knife splits right through the quadriceps tendon above the patella into the synovial pouch. The soft tissues over the patella are divided to the bone, the knee cap sawn through, dividing it into two lateral halves, then the ligamentum patellæ is also split down to the tubercle of the tibia. By this means the joint may be thoroughly exposed by drawing outwards each half of the patella and associated structures to its corresponding side of the joint. The two halves of the patella are wired when the operation is finished. He claimed the following advantages for the operation:

1. The attachments of the fascia lata, the lateral ligaments, and the prolongation of the vasti to the tibia and fibula, are not divided, and consequently there is much more support to the joint during the healing process, and when the leg is well.

2. Above the patella the synovial pouches are well opened, and all the synovial membrane, can be thoroughly removed.

3. Dislocation of the tibia backwards and tilting of the femur forwards, which commonly occur after the operation, are thus prevented.

4. The joint and the end of the bones can be thoroughly examined,

which was not possible by the method of lateral incisions.

5. The undivided quadriceps is a strong antagonist to the ham-string muscles, and should the splint be left off the leg is much less likely to become bent.

6. Progression is greatly improved, the attachment of the quadriceps being neither divided nor the muscles shortened, as must necessarily take place when either the transverse **H** or **U**-shaped operation is performed.

7. And, above all, as we hope after excision to obtain movement in the knee joint, the chances, Mr. Allingham thought, of such a result being brought about will be greatly facilitated by the operation described.

In future operations Mr. Allingham said he would remove thoroughly the whole synovial membrane, and only dig out with a gouge the diseased spots on the cartilage, and should not in any way interfere with any of the cartilage that looks healthy. If the crucial ligaments are not extremely diseased, they should be left undivided. The joint should be kept at absolute rest until the wound has healed, when passive motion may be commenced.

Mr. William Adams thought nothing could be better than the result in the case shown.

Mr. Edmund Owen considered that the hemorrhage would be less from the joint in Mr. Allingham's method, which he should certainly practice, but rather as erasion than excision of the joint.

[This is undoubtedly a valuable modification of any of the other methods and seems superior to them all. We are pleased to note that Mr. Allingham keeps the joint immobilized for a time, instead of senselessly disturbing the reparative process by so-called passive motion, from the very beginning.]

A. H. P. L.

The Ecraseur in the Treatment of Hemorrhoids.

In a clinical lecture by Professor PANCOAST, published in the *Medical Register*, the Dr. said :

This gentleman is the one, you will remember, who had the very large and painful internal hemorrhoids. They were bleeding very freely, and he suffered exceedingly from the loss of blood as much as from pain. He was very anæmic, and for the past year or more he dreaded to have an operation on his bowels. After it, he became exhausted and faint, and was prostrated for two days or more. I operated upon him, as you remember, in the way I prefer, with the écraseur. I prefer the operation by the écraseur (*écrasement*) to all other radical methods. It is much better, and a more rapid cure than that by the silk ligature. The ligature of wire I think bad surgery, as you cannot tie the wire close enough. It is less shocking to the patient and more speedy in result than the hot iron, or the clamp, as suggested by Mr. Pollock, of St. George Hospital, London, and far safer than dissecting them out, as is again being revived in England. In your office you can alleviate and even cure some internal piles by successive injections of carbolic acid, or the application of strong mineral acids, but the treatment is tedious and often painful. External piles, which are exposed external to the sphincter ani, should be cut open and the clot turned out. The clot is a foreign body, but internal piles or hemorrhoids are vascular tissues, composed of the dilated terminal capillaries of the hemorrhoidal arteries and veins enormously enlarged. These veins are the lowest point of the portal circulation, which portal veins having no valves, allow the blood to flow backward or downward freely.

Hence the great liability to serious secondary hemorrhage, if the hemorrhoids are incautiously attacked.

I know of a case where, from a faulty operation, the internal hemorrhoids were only partially ligated. After the operation, the sphincters being spasmodically closed, blood flowed into the rectum, and under, as I believe, a forcing pump action of the diaphragm and abdominal muscles, the blood was forced out of the vessels into the bowels, and the patient died from internal hemorrhage. At the post-mortem the bowels were found filled with blood up even through the ileo-cæcal valve into the ileum. The patient died from internal hemorrhage, without any external flow of blood. I think this is a matter of great importance. I have, therefore, always followed the plan of my distinguished father, by putting up in the rectum a suitable hollow tube to prevent spasmodic closure of the sphincters. This also allows the cool air to be drawn in and the foul air to pass out. At the same time the least flow of blood can be seen at once. During the last twenty-seven years, I have operated upon a great many cases of internal piles by my method, and have never lost a case; have always had the best results, a speedy cure, and permanent relief. The same hemorrhoids can never show themselves or return; they have been completely removed. Among those cases, of which I can now recollect about twenty, all of which were successful and cures, I recall two where there was secondary hemorrhage; both cases were of a hemorrhagic diathesis. One of them had just returned from the army broken down in health. I controlled the hemorrhage in each case by wrapping around the tube strips of patent lint soaked in Monsel's salt, and pushed these pledgets up against the oozing points, correcting the flow of blood by pressure, as well as with the hæmostatic. I have used this tube and lint in the same way in some cases of extensive fistula in ano, when I had to make an incision very high up.

Not only is this operation of écrasement the safest and speediest operation, but it is a pleasant idea to the patient that no cutting with a knife is used. Patients naturally dread the knife, but they are also pleased to know that after the operation no further manipulation is necessary, as is sometimes required in the ligation operation, by re-tying or removing the ligature. I put the patient to bed, keep his bowels locked up for a week or ten days, give him food such as mutton broth and rice—that which leaves the least *débris*—and at the end of that time give a purge of castor oil disguised. The tube, the results of digestion, and the secretions come away, and then I let the patient get up and improve his diet. I am always particular to purge the patient two or three times, for a week prior to the operation, with blue mass, colocynth and jalap, and have an injection given the morning of the operation to wash out the rectum.

The secretions thus being well eliminated, the patient comfortably bears having the bowels locked up for seven to ten days. If there is any pain in the rectum or a tendency to a movement of the bowels, or the patient is heedless, I thrust up, as needed, forty drops of laudanum in a little starch water through the tube, thus saving the mouth and stomach, and applying the opium where it will do the most good. The facility which the hollow silver or metal tube affords for this injection is another advantage in its use.

It is remarkable, even after the free preliminary purging and the light diet,

that when at the end of the seven to ten days the bowels are moved, what an amount of material, sometimes dark and offensive, comes away. This the physiologist can appreciate; for though not much nourishment and no solid food is taken, yet the secretions are poured out, decomposed in the intestinal tract, and must be discharged.

The hemorrhoids at the time of the operation, were very large on both sides and extending above the internal sphincter muscle, involving the whole of the anal outlet. The predisposing causes were constipation and constant horseback exercise required by his profession.

Causation of Hip-Joint Disease.

MACFARLANE states that the majority of the profession adhere to the doctrine of the constitutional origin of the disease, and that the joint disease is merely a local manifestation of a constitutional diathesis. The modern inquirers assert that all cases are merely local. The doctor declares himself a believer in the constitutional origin. We hardly think it fair to assume that we do not have cases of morbus coxarius that are not local. There are many things aside from "tubercular diathesis" that may deteriorate the system to such an extent that any local injury may excite in the hip-joint a morbid action that may end in a carious process. Nor can it be doubted that "tubercular diathesis" may make itself known through the hip-joint, just as it may in many ways. The doctor does not prove to our minds that chronic ostitis of the hip-joint is always constitutional, nor have we been convinced on the other hand that it is purely local in its origin. We think the median ground the safest. We should not deny the case of constitutional origin the benefit of local treatment, nor the local disease the benefit of constitutional treatment. We have in mind one man, and he ranks well, who certainly must believe in the constitutional origin of the disease, as he almost entirely ignores the local trouble, treating it frequently without a splint. On the other hand we know another who seems to ignore the constitution and rely on local treatment entirely. We think one method of treatment just as dangerous as the other.

[We believe the above criticisms to be very sound.] A. H. P. L.

The Ano-Genital Region and the Matrix of the Great Toe Nail.

It is a fact, perhaps quite generally known, yet none the less important for that, that in the administration of an anesthetic, the sensibility of all parts of the body is not abolished at the same time, but that some regions retain their powers of recognizing impressions, long after they have been lost in others. Those parts which are the last to lose their sensibility in the anesthetization process, are the ano genital region and the matrix of the great toe-nail, and it has been supposed that to this fact a number of the charges of improper conduct on the part of the physician toward female patients has been due, for the genital region retaining its power of perception after their cessation in other parts of the body, any movements made by the patient toward the end of the anesthetization, or any arrangement of the coverings or clothing of the patient by the physician, producing in her the sensation of having been touched, that sensation is referred of course to the only part capable of perceiving it, viz., the ano-genital region. Hence, the first recollection of the patient, after the process is finished, will probably be that of having been touched in that region,

and the result is a belief on her part, even if no charge is made, that she has been improperly dealt with. For this, and many other obvious reasons, the rule that another female should be present during the anesthetic process, as well as during an examination of a female, should be strictly carried out.—*Weekly Medical Review.*

[An ingenious, interesting and plausible explanation.] A. H. P. L.

VENEREAL DISEASES.

The Use of Whalebone Bougies in the Treatment of Urethral Strictures.

Dr. J. H. Brinton made some remarks on whalebone bougies, before the Philadelphia Medical Society, which was published in *Md. Medical Journal.* He said :

In making my bougies I purchase the material from a dealer in New York. These long, slender, rounded, whalebones of various thicknesses are articles of commerce and are used for many purposes in the arts. They are rounded through a drawplate,and come in lengths of twenty-seven or twenty-eight inches, costing about two dollars a gross. Each piece will make two bougies. In preparing them I first cut off the ends transversely so as to get rid of any tendency to split. I then round the end by rubbing it slightly on a sheet of emery paper gummed upon a board. I then make the extremity bulb-shaped. I am told that the bulb is usually produced by the action of a file. This, I think, is objectionable, as it impairs the fibres of the bone, and renders it liable to break or cut when metallic instruments are slid down over it. I make the bulb extremity by placing the end of the whalebone in a groove on the board and shave or scrape it from the end with a very sharp knife. I then shave down the shank and neck in like manner in the opposite direction, until I have formed a conical neck from three to four inches long and of almost capillary thickness as it approaches the bulb. The shaping of the bulbar end demands some dexterity in handling the knife, and to insure accuracy I do this under a lens of lower power. Having shaped the filiform with the knife, it may, if desired, be yet more smoothed by being rubbed laterally on the emery board. In case cylindrical whalebone cannot be obtained from the manufacturers, the irregular strips may be readily rounded by being passed through a watchmaker's drawplate, or wire gauge. As the filiform whalebone bougie is the guide upon or over which metallic instruments are to be passed, each one should be carefully fitted. This can be done by frequently passing it upward and downward through the tunnelled perforation in the beak or extremity of each and every instrument, in conjunction with which it may in future be used. This may seem a small matter, but, in fact, the harmonious action of the guide bougie and its metallic companion has much to do in effecting a ready passage of a strictured point.

[The speaker here illustrated the process of constructing the bougie.] After using one of these instruments, should the neck become bent or twisted, I place it for a moment in hot water and press it between the leaves of a book.

The whalebone, when once introduced, serves as a guide to the metallic catheter, or stretching instrument. This may be the tunnelled catheter, or any of the various forms of dilators or divulsors ; preferable, I think, to that of Sir Henry Thompson, followed by this powerful and most efficient instrument designed by Prof. S. W. Gross, and

which registers from 16 to 40 of the French scale.

In using metallic instruments in conjunction with the filiforms, there is one point to which, I think, attention has not been directed. We are ordinarily told to slide the metallic instrument over the whalebone through the stricture into the bladder ; in so doing the whalebone may be cut at the seat of stricture. I have often heard of this accident, and I have seen it happen. I avoid it in this manner : Having passed the whalebone into the bladder, I carry the metallic instrument—threaded on it, as it were—down until I reach the stricture, the point of resistance. I then cease to push the metallic instrument along the filiform, but slightly withdraw the latter to gain a little by its conicity. I grasp firmly both instruments between my thumb and finger, and gently carry them on together. In this way I am almost certain to pass the resisting point, and, if the stricture be single, to reach the bladder. I speak on this matter somewhat positively, since I have used these instrumeuts largely, and cannot, for many years, recall a case in which I have failed to pass in the manner described.

In employing the stretching instrument I usually separate the blades as far as No. 30 or No. 35 of the French scale, and on its withdrawl, introduce a steel bougie of about the same calibre, to see that it all is right and that the urethra is clear. The bougie is then removed and is not introduced until the third or fourth day. The after-treatment consists in the hypodermic use of morphia, etc., full doses of quinine, and in a milk diet.

In retention dependent upon tight and irritable stricture, not readily overcome by the catheter, I have often succeeded by simply passing a whalebone into the bladder and leaving it *in situ*. The urine will readily pass along the filiform by capillary action, and the steady dribbling thus established will in a short time empty the bladder. The presence of the whalebone serves also to render the stricture less tight, and so facilitates the after passage of metallic instruments should their use be considered desirable.

A New Apparatus for Urethral Injections.

Dr. Finger (*Allgemeine Med. Zeit.*), has had made an apparatus which answers the double purpose of a fountain syringe and a syringe working by means of a piston. It consists of a cylinder with a capacity of from 300 c. c. to 500 c. c., which is suspended against the wall by means of a hook. From the lower pointed end comes off a rubber pipe with a pear shaped nozzle at its farther extremity, which is furnished with a cock. The upper end of the cylinder is closed by a simple cover-like cap, which does not screw on, and this is bored through for the passage of the piston rod. The syringe is filled by drawing up the fluid through the tube by the action of the piston. One filling is sufficient for many injections.

In acute cases of gonorrhœa, the cover of the cylinder with the piston is removed, and the apparatus is used as a fountain syringe. As soon as the urethra is well distended by the fluid, and the patient feels some pain, he turns the cock, withdraws the nozzle-tip, and, pressing the mouth of the urethra together, causes the injected fluid to be retained for one or two minutes. In gonorrhœa of some standing, when the acute symptoms have passed, the cover and piston are replaced and the injection is forced deeper in the urethra.—*New York Medical Journal.*

DISEASES OF THE EYE AND EAR.

Some Modifications in the Treatment of Stricture of the Nasal Duct.

The author said that about 1883 the Western Suppository Co. made a lachrymal bougie of medicated gelatine of such elasticity that it could easily be passed into the nasal duct. It was less painful than a metal probe, and its slow solubility kept the mucous membrane at the point of stricture distended so that it could be acted upon by the medicine from thirty to sixty minutes. He thought results showed the use of electrolysis in these cases to be often unsatisfactory. The object to be attained is to restore the diseased parts to as nearly a normal condition as possible, and the most satisfactory treatment is by using injections more and probing less frequently. The author determined to try the effect of probing the punctum without slitting the canaliculus, followed, by astringent injections over the inflamed surface. This treatment proved entirely satisfactory, and in about five weeks a patient went to his home in another State with apparent perfect recovery and no destruction of the tissue.

The following case was given as illustrating the author's method of treatment: Mrs. L. suffered from lachrymation of each eye for two years. There was severe lachrymal conjunctivitis of the right eye, the punctum being contracted one-half. On dilating the right punctum a No. 2 probe could be passed without difficulty, but the whole interior of the nasal duct had the peculiar velvety feeling that is caused by thick villous mucous membrane. The same condition, in less degree, was found on the left side. Treatment was commenced by applying a week astringment and washing out the lachrymal canals thoroughly each day with boric acid lotion, followed by a weak astringent. Once a week a probe was passed through the dilated punctum down to the naris, using a larger probe each time, until No. 7 was reached. The result was satisfactory; in six weeks the patient returned home apparently well.—*Medical Register.*

Aspiration of the Middle Ear.

Dr. Seth S. Bishop, in the *Journal of the American Medical Association*, of January 15, 1887, advises a new method for aspiration of the middle ear and tube of the Eustachians. The nose and mouth are held shut while a strong inspiratory effort is made. This forces or sucks the mucus or pus out of the ear and tube into the pharynx. The process may be repeated. The advantage of this method is that it is so simple that any patient can do it with ease and at any time or place.

How to Syringe the Ear.

In order to syringe the ear properly, a hard rubber syringe should be used, and a thin bowl be held close under the lobe of the ear, well up into the fossa at the articulation of the lower jaw with the temporal bone. The patient himself, if he be a large child, or an adult, will hold the bowl better than an assistant. The surgeon then straightens the meatus, by gently pulling the auricle in an upward direction with one hand, while with the other he uses the syringe. It is well to allow the water first to pass into the concha of the auricle, and not immediately into the canal, in order that the patient may judge as to the temperature of the water, which should be lukewarm.

The injection of water is a potent agent in removing a foreign body from the ear. It is sufficient to move a plug of wax, which has been impacted for

years and which has completely plugged up the auditory canal. How much more potent must be the stream of water, when there is sufficient space through which it may get behind a foreign body and wash it forward by the returning current. There are no cases on record where syringing, when undertaken before any other attempts have been made, failed to remove a foreign body from the ear.

Unfortunately, however, those who believe in the efficacy of the simple procedure of syringing, do not always see these cases at first. The foreign bodies are often impacted, or so situated that a stream of water cannot pass behind them. There is often, also, very great inflammation of the parts, caused, not by the foreign body, but by the attempts to remove it. If it be plain that the foreign body is not causing the severe symptoms, a little delay may be advised, until proper local treatment—the use of leeches, and the instillation of warm water—has subdued the inflammatory process. If it be probable that the foreign body is wedged in upon the drum, or perhaps pushed through it into the cavity of the tympanum there is nothing to be done but to remove it at all hazards. Perhaps the best way, in case all attempts by means of delicate instruments introduced into the canal (which is at the same time well illuminated by a concave mirror placed on the forehead by means of a band) have failed to reach the body, will be to adopt Troltsch's suggestion, and to detach the auricle posteriorly, and thus reach the body from behind. Having thus separated the auricle from its attachment, the membrana tympani will be thoroughly exposed, when it will be very easy to remove anything which may be upon it.—*Maryland Medical Journal.*

Sympathetic Ophthalmia.

Dr. W. Franklin Coleman (*Medical and Surgical Reporter*):—Disease in the sympathetic eye generally occurs when there has been a wound or operation in the dangerous zone of the diseased eye. Becker collected twenty-two cases of sympathetic ophthalmia from cataract operations, foreign bodies lodging in the eye, and degeneration of a lost eye, or other causes. Dr. Coleman read in detail the clinical history of the disease, and enumerated the causes, histories, and results of the treatment of a large number of cases. In regard to treatment he advises as per the following:

Condition diseased eye.	*Condition sympathetic eye.*	*Treatment.*
Blindness.	Normal.	Enucleation in unintelligent and children.
Blindness.	Sympathetic irritation.	Enucleate.
Blindness.	Sympathetic inflammation.	Enucleation not often advisable.
More or less vision.	Normal.	Do not enucleate generally.
More or less vision.	Sympathetic irritation.	Better enucleate.
More or less vision.	Sympathetic inflammation.	Do not enucleate.
Acute ophthalmitis.	Normal.	Never enucleate.
Acute ophthalmitis.	Sympathetic irritation.	Puncture and foment diseased eye, then enucleate.
Acute ophthalmitis.	Sympathetic ophthalmitis.	Treat ophthalmitis, and then enucleate.

DISEASES OF THE SKIN.

Leprosy.

The Hawaiian Legislature, in its determined efforts to try to control the spread of leprosy in the islands, was fortunate in securing the valuable services of Dr. Edward Arning for purposes of special research. He found the bacillus lepræ plentifully in all nodules and diffuse swellings of the tuberculous

cases and in similar lesions of the mucous membrane of the mouth, throat, nose, rectum, and large intestine, and in the discharges from the ulcerated lesions. He recognizes a diarrhœa arising from the leprous ulceration of the bowels closely simulating a true dysentery, and thinks that the deaths usually ascribed to intercurrent pneumonia, tubercular phthisis, and dysentery should be more correctly ascribed to breaking down of leprous infiltrations of the lungs and bowels. He failed to find the bacilli in the early bright red patches of vaso-motor congestion due to nerve lesions, in the anæsthetic patches of the so called "anæsthetic cases," and in the chronic sores of necrotic parts of skin tissue and bone, but they were present in the nerves supplying the mutilated parts. There were none in the urine and none in the blood, nor could he discover by culture or otherwise the existence of any spores in the latter fluid. All attempts to obtain an independent and pure growth of the bacillus lepræ failed, nor were inoculations of animals of various ages in different parts of the body succeeded by a general infection. Arning inoculated a condemned criminal, but fourteen months later no definite results had followed, though a few bacilli could still be detected in the scar. Lastly, he demonstrated a vitality persisting over several months of the bacillus lepræ in putrefying tissues. On the clinical side, researches in electro-diagnosis convinced him that the anæsthesia and paralysis are due to leprous disease of peripheral nerves, but he does not regard the muscular crippling as so characteristic of the disease as the bone affections. Coming to therapeutics, we notice that Arning administered iodide of potassium without any good effect, also hyposulphite of soda, creasote, carbolic acid, and arsenious acid; and with some good effect salicylic acid and hypodermic injections of corrosive sublimate. He observed the efficiency of electrical treatment in anæsthetic cases, and insists on the value of salicylic acid in a 10 per cent. paste or ointment or solution in oleic acid, and also of pyrogallic acid in a 10 per cent. ointment or strong solution in traumaticine. Arning declares that, for one reason or another, he found it impossible to obtain from questioning the natives reliable statistics on which to base proofs for the hereditary or congenital transmission of leprosy; but we note from other reports that amongst the cases of advanced leprosy at Molokai sterility is almost universal, and the majority of the offspring, where either one or both parents are diseased, have been still-born or have died within a short period after birth, and of those who have survived many have not yet developed leprosy. No congenital cases have been observed, but Arning saw two well marked lepers, aged respectively $3\frac{1}{2}$ and 4 years. Dr. Mouritz points out that, whilst it is perfectly true that healthy people may live with tuberculated lepers for years without contracting the disease, many on the other hand do not escape, and he especially refers to the remarkable percentage of the non-leprous assistants, or kokuas, who contract the disease. Of 178 kokuas, 17 developed leprosy between February, 1885–86.—*Lancet.*

Treatment of Ichthyosis.

BESNIER recommends baths of 2 to 4 hours' duration, followed by anointing with equal parts of glycerin and rose-water; or with β naphthol, resorcin, or precip. sulphur in vaseline in the strength of five per cent. These baths and anointings are to be repeated daily for a week, and then weekly.—*N. Y. Medical Jour.*

FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

New Method of Amputation at the Ankle Joint.

PROF. A. C. TAUBER (St. Petersburg, Russia): After having criticised the methods of operation at the ankle-joint, introduced by Syme, Malgaigne, Roux, Sedillot, Le Fort and other surgeons, Prof. T. has demonstrated in the first congress of the Russian physicians his own method, which is a modification of Pirogoff's. Fig. 1 shows a stump made according to Tauber's method. His operation Prof. T. performs as follows:

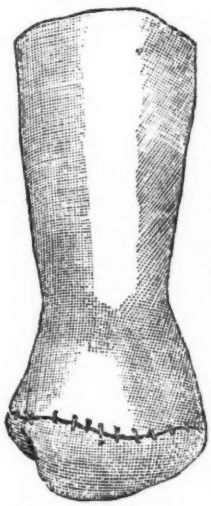


FIG. 1. Stump Produced by Tauber's Method.

He begins an incision at the attachment of the tendo Achillis (A, Fig. 2) and carries the knife forward, below the malleolus, to the Chopart's line (B, Fig. 2), and then across to the dorsum of

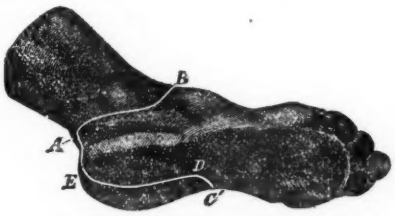


FIG. 2. Line of Incision Along Outer Side of Ankle.

foot, down, (from B to C, Fig. 3); on having reached the middle line on the plantar surface (D, Fig. 2) the knife is carried backward to the heel and then upward to the starting point (D E A, Fig. 2). In this first stage of operation Dr. T. cuts the skin and other soft tissues to the very bones.

In the second stage, Prof. T. opens the ankle joint in the usual manner, that is, he cuts ligaments in this order, lig. fibulare-tali post., lig. fibulare calcaneum, and lig. fibulare-tali ant.; then arkr. lig., and at last the deltoid lig.

In the third stage, Dr. T. dissects out the astragalus and cuts off the foot in the Chopart line. While an assistant firmly holds the os calcis by forceps, Prof. T. saws off the external half of the bone,

FIG. 3. Line of Incision Along Inner Side of Ankle.

in the line corresponding to the one first made in the skin (B C Fig. 3). Thus the interior flap of the heel contains a thick, almost square part of the os calcis and the poster. tibial artery not injured. (See Fig. 4.)

In the fourth stage, Prof. T. saws off the malleoli, puts ligature on the arteries, severs and adjusts the two surfaces of the bones to each other, which is easily done without any extension of the tendo Achillis, as can be seen in Fig. 4. Lastly the wound is united with sutures.

The advantages of this method consists in the following points: The poster. tibial artery remains intact, saved for the stump (see Figs. 3 and 4); the tendo Achillis and bursa mucosa retro-calcanea remain uninjured, and the surfaces of the bones sawn off will correspond to each other (see Fig. 4), thus favoring the process of ossification.

In 1877, during the Turko–Russian war, when there were many soldiers with frozen feet, Prof. Tauber tried his method with gratifying results. He believes that in his method preserving the

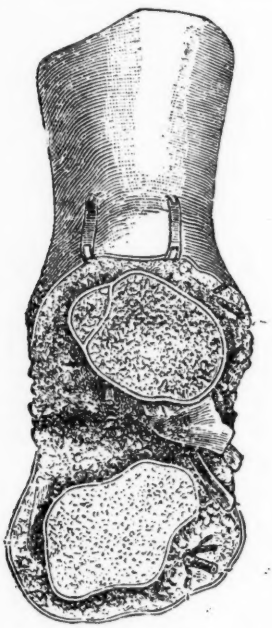


FIG. 4. The Flap Completed.

poster. tibial artery there is far less danger from the necrosis of flaps than in the other methods. As to the technique of the operation Tauber's method seems to be less complicated than those of the surgeons mentioned above. However, experience is needed to prove all that Prof. T. claims for his method. —*Vratch* (St. Petersburg).—*Annals of Surgery.*

A Drainage-Pump for Pus Cavities.

The usual method of drainage of abscesses and pus cavities has a great many more or less disadvantages. Among others are the following :

1. The impregnation of the bandages with pus which become decomposed under the influence of air, dust and heat.

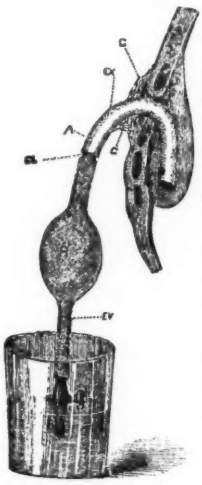
2. The bandage becoming wet from being impregnated with pus, acts like a *Compresse-échauffante* (wet poultice), the skin becomes macerated and then might become excoriated and covered with wounds or with rash, thus making the possibility of a general infection much easier.

3. The two above mentioned reasons makes the use of antiseptics absolutely unavoidable as well as the more frequent change of the dressing (bandages). Now we know that antiseptics are injurious, not only locally, but they might poison the whole organism. The disadvantage of frequent change of bandages is well known ; it is troublesome, dirty, and oftentimes economically not convenient. But the greatest disadvantage in too frequently changing the bandages lies in having an opportunity of letting the air and all the substances which are dissolved in the latter to come often in contact with an open wound or pus cavity.

4. In abundant accumulation of pus in large cavities, it is very often impossible to clear the cavity from all pus by the way of ordinary drainage. There is always some left in the cavity, and to overcome this inconvenience, we must have recourse to pressure and irrigation. Now, however carefully we might exercise the pressure or irrigation, we will always, in a more or less degree, interfere with the walls of the cavity, which commence to be covered with granulation, and in such a way we might cause the inflammation and formation of pus (suppuration), spread in the surrounding parts, and we might cause pyemiam or septicæmiam.

The enumerated disadvantages make it easy to understand why a great number of surgeons do not favor drainage

and some of them try to do without them, although we cannot do without them, not only in treating abscesses, but even in attending to wounds. It is an indispensable evil so far. My method of draining pus-cavities, which I am now going to illustrate to you, and which I use at present, has, in my estimation, far less disadvantages.



We introduce in the pus cavity (*p. c.*), a proper size drainage tube to the bottom of the cavity. The outer end of the tube, which has to have about two inches in length, has no side apertures. The drainage tube is kept in the wound hermetically by means of cotton and collodion (*p. c.*), and is connected with the rubber ball (*r.*) (from a usual pulverisator) through a glass tube (*gl.*). The other end of the rubber ball terminates in an evacuating tube (*ev.*), which can be closed by means of a faucet, or simply with a cork. In this way, we can evacuate the pus from any cavity without running danger of letting the air come in contact with the open abscess, and observing at the same time the strictest antiseptic measures, especially if the end of the evacuating tube is immersed in a vessel containing some antiseptic solution.

No other bandage is needed. But for not letting the drainage slip out from the wound or cavity, especially with restless patients, it would be advisable to apply a few rounds of a guaze bandage near the drainage tube. It is also advisable to fasten in some way or other, the rubber ball from being dragged around.

It is evident that compressing the rubber ball, we will produce a suction, the strength of which depends on the elasticity of the ball, while compressing the outer end of the drainage tube (A) between the ball and opening of the abscess, we cut off the communication between the abscess and ball, and the latter has no influence whatever on the abscess.

It is always better not to use hard rubber balls, as they possess a strong suction power, and in abscesses with little contractile tendencies, they might (by strong suction) produce sanguinary pus. It is easy to understand, that by means of the rubber ball, we can wash out the pus cavity by pumping in any desirable liquid.

The above drainage pump I use with great convenience and excellent results in very large cold abscesses, in chronic bursitis, in pyothorax, and other wounds with a profuse production of pus. The advantages of my drainage pumps are as follows:

1. Complete antiseptic treatment by avoiding any bandages and other materials, and absolute hermetism, and

2. Very simple and convenient mode of evacuating pus from cavities and abscesses, without soiling the linen, and excluding air; the cleaning of the wound, abscess or cavity, and the evacuation of pus can, in many instances, be accomplished by the patient himself, as it does not require any special skill.—*Pacific Record.*

Fractures of the Femur in Infants.

Whilst fractures of the femur are rare during the first year or two of life, they are stated by Holthouse in Holmes' System of Surgery to occupy the second place in point of frequency during the

periods of infancy and childhood. These fractures may occur at any time subsequent to birth, and in fact during intra-uterine life also; thus Gross records a case which came under his observation which was but four weeks old, and Agnew a similar case. The case mentioned by Gross was caused by another child rolling over the baby's thigh whilst it was lying upon the bed. Fractures of the femur in children are usually transverse, or at least the obliquity is not great, hence there is but little tendency to shortening or displacement, the slight muscular development of the limb likewise is favorable for union without shortening. Greenstick or incomplete fractures of this bone also occur, where there will be a bending of the limb without the usual signs of fracture. Union occurs with surprising rapidity, Gross giving 15 to 20 days as the time in which consolidation is effected. These fractures are always troublesome to treat on account of the shortness of the limbs, the looseness and flabbiness of the soft parts and the impossibility, or at least great difficulty in preventing the dressings from being soiled by the urine and fæces, and the danger of excoriation and chafing of the child. It can be readily seen that there are many elements favoring the securing of repair without shortening or deformity, but there are also several factors which somewhat oppose the obtaining of this very desirable result, thus the natural fretfulness and restlessness of a very young child, especially when restricted in its movements, the necessity of taking it up for the purposes of feeding or of ablution, tend to disturb the fragments and interfere with satisfactory repair. Owing to the difficulty of applying a satisfactory apparatus, Sir James Paget advised that the limb should be flexed and simply laid upon its outerside without any splint, but this advice has never received much acceptation. Gross and Agnew recommend long side splints secured by plaster-of-Paris bandages. The same result may be effected by silicate of soda, the "wasserglass" of the Germans, but it requires 12 to 14 hours to set, which is a disadvantage; or starch may be employed for hardening purposes. Whichever of these agents is used, either with or without side splints, it will require to be covered with a coat of shellac or carriage makers' varnish in order to render the dressings impervious. Bryant prefers vertical extension when the child is under three years of age, and has used this method satisfactorily in the cases of a child that was but eight months old. Southam in Treves Manual of Surgery also expresses a preference for vertical extension. Whilst vertical extension is undoubtedly an exceedingly good method of treating the fractured thighs of children, it seems to us that it could scarcely be applied to a nursing infant or to a restless or fretful child.

Mr. Bryant advises "that the injured limb of the child, with the sound one be flexed at a right angle with the pelvis, fixed by some light splint, and hoisted upward to a cradle, hook or bar above the bed. By these means the child can be well looked to for purposes of cleanliness, and a good result may be expected. Kümmel, of Hamburg, holds this method of vertical extension in fractured thighs of infants to be best." When the child is over five years of age Bryant prefers the double splint. Holthouse says it is seldom necessary in the broken thighs of infants to do more than apply soap plaster spread on leather from the knee to the hip, secured firmly by bandages. The treatment which seems to have met with the greatest acceptation is that of F. H. Hamilton by

means of two side splints, extending from the axillæ to below the feet, and secured together by a cross piece, both limbs are thus firmly secured, extension and counter extension is made, and the child can be taken up, nursed or washed or put into a coach and wheeled around. C. Heath speaks well of this treatment Whatever method may be adopted, it will require great attention on the part of both surgeon and nurse to secure cleanliness without disturbing the fracture dressings. We incline to the belief that the method of Hamilton or some analogous plan of treatment will give the best results in these cases, as it allows an easy inspection of the limbs, can be readily removed or redressed and permits the child to be taken up.—*Md. Medical Journal.*

[Of all the above mentioned plans, that of Hamilton commends itself to us as the best. It would seem, though, that vertical strips of adhesive plaster fastened to the injured limb, as recommended by Allison in elbow joint fracture, would prove an adjuvant of great advantage in preventing overriding of the fragments and angular displacement.] A. H. P. L.

Fracture of the Anatomical Neck of the Scapula.

Dr. H. B. Hemenway, after giving the history and treatment of a case of this injury, asks and answers the following questions, in the *Journal American Medical Association:*

What should we expect to find in a fracture of the anatomical neck of the scapula?

1. There would be downward dislocation, with possibly dislocation either forward or back. This dislocation would be caused by the blow received, and when once displaced the broken bone would catch in the muscles. The coracoid and acromion processes would stand out distinct. There would be a cavity below the acromion.

2. In proportion to the amount of dislocation it would be difficult to obtain crepitus.

3. In a fleshy man, the only way to obtain crepitus would be pressure from in front back, just below the coracoid process, and possibly by pressure from the side on the shoulder.

4. The arm might be slightly lengthened, though not as much so as in the simple subglenoid luxation.

5. Since the humerus would move freely on the broken head of the scapula, and the latter would be caught in the muscular tissues surrounding, movements of the arm would not produce crepitus, and would only produce pain, when it was raised to such a position as would stretch the injured muscles.

6. Since the head of the humerus would not be caught on the edge of the head of the scapula, though the axis of the same might not be parallel to the chest, unlike a subglenoid luxation, the elbow might touch the chest.

7. When reduced the abnormality would not show a marked tendency to return. Such a tendency would be in proportion to the obliquity of the fracture.

8. Reduction by manipulation would not occur, but reduction by lateral traction would be comparatively easy, and without a noticeable "thud."

9. The arm would be neither rotated inwardly nor outwardly.

10. The elbow would neither be prominently thrown backward, forward, nor outward; but

11. The arm would be most comfortable with the elbow a few inches from the chest.

12. Paralysis of voluntary motion might be present.

In such an injury, there would remain to hold the bones in place after reduction of the dislocation :

A. To hold the humerus up : 1. The coraco-humeral ligament. 2. The deltoid, coraco-bracialis, short head of the biceps, triceps, supra-spinatus, and the superior fibres of the pectoralis major muscles. B. To prevent backward dislocation : 1. Coraco-humeral ligament. 2. Pectoralis major, and short head of the biceps muscles. C. To prevent forward dislocation: The latissimus dorsi and scapular muscles.

The points in treatment are : First, reduction by lateral extension. Secondly, to keep the bones in place. The head of the humerus must be kept up, and quiet. To accomplish this the elbow should be bound to the chest, and a bandage should be passed under the elbow and over the shoulder. The bandage around the chest should not extend too high up, as that would tend to crowd the injured pieces together, and cause them to slide on each other. Were I to treat another case, I should use an ample auxiliary pad to act as a fulcrum, and take off the lateral pressure.

A Practical Hint on the Performance of Tracheotomy.

The suggestion I have to make, and which, I have no doubt, many surgeons have long ago thought of or adopted, although hitherto I have never seen it noticed, is so simple as to provoke a doubt as to its value, but any one who tries it will, I think, find it so effectual in practice as to have no more doubt than I have as to its advantage. Let the surgeon place his left hand, as widely expanded as possible, over the neck of a child in the position for tracheotomy; then, resting the fingers upon one side, and the thumb upon the other firmly upon the skin, as far to the side of the neck as they will reach, gradually draw in the thumb and fingers, and the skin (and loose tissues underneath) with them, toward the median line, as the sides of the windpipe are approached, a little more pressure, made in a backward direction, will place the ends of the thumbs and fingers in a position in which they almost meet behind the larynx, which is thus firmly held by the encircling hand in a position in which all the great blood vessels, etc., (which have been wounded) and the vertebral bodies (which, it is recorded, have blunted a knife-point) are far out of harm's way, the windpipe itself starting forward and standing out prominently under the skin, which is yet fairly stretched (and can be stretched more tightly) over the site of incision, and lying both as superficially as could be desired and as perfectly under control as possible. Lastly, and this, I think is not altogether unimportant, this procedure may be adopted without producing more than the very slightest degree of discomfort in any ordinary child—the younger the more easily—and one is still able to make the skin as tight as possible; now, however, the necessary pressure is distributed all round, instead of acting directly backward upon the tube so as to flatten or displace it. I have even been able, without much trouble, to make the thumb and fingers feel each other behind it by this means; while, by the older method, I have seen the production of undoubtedly a dangerous increase of dyspnœa. I may have overrated the danger, or underrated the utility of the usual method of fixation, but it has always seemed to me to be the only difficulty in an operation, which of course has none for experienced surgeons, but to others presents often some

trouble, chiefly in consequence of the fact that the means adopted for fixing the part to be incised, being ill-devised though time-honored, are not only not to be relied on to secure that end, but, as I have tried to show, they directly tend to increase the depth of the wound of the trachea from the surface and the distress of the patient; and in all the accidents I have read of, and some that I have witnessed, this method has shown itself marked sometimes by danger, often by inutility. As to the barbarity of the hook, is it not an insult to the fingers of the χειρουργός?—*London Lancet.*

[It has been our custom to fix the pretracheal integument, during its incision, by making gentle pressure against the tricoid cartilage. This was all that ever seemed necessary. Still, Mr. Braddon's plan appears to be excellent, and certainly has the advantage of enabling the operator to control both the arterial and venous flow to a certain extent. By the general adoption of his plan much danger might be avoided.] A. H. P. L.

The Treatment of Hernia by Subcutaneous Injection.

Dr. W. B. De Garmo (*New York Medical Journal*) first gave a brief history of the treatment of hernia by methods purporting to be subcutaneous, the object of all of which had been up to the time of the publication of Heaton's method, to cause obliteration of the hernial sac. Heaton had been practicing his method, and obtaining many cures, since 1843, but he refused to make it known until 1877. From that time dated a new era in the treatment of hernia. Heaton made no attempt to destroy the hernial sac; the whole object of his operation was to so fortify the fibrous tissue surrounding the canal that protrusion would not occur. His method stood alone; it differed in every way from previous methods of subcutaneous treatment; the fluid injected was astringent and mildly irritant, and its action was brought to bear upon the muscular and tendinous structures of which the inguinal canal was composed and upon the connective tissue which bound these layers together. That improvement and practical cures would result from injections of this oak bark solution the reader had had abundant evidence, and he could also state that it was practically without danger, at least when correctly employed. Several years ago he stood almost alone in indorsing the method, but since then it had been adopted by many others. That frequent failures had occurred was beyond question. To throw light upon the cause of some of the failures was a principal object of the paper. In the first place, too much had been expected of the operation, and this was in great part due to the manner in which Heaton placed it before the profession. It was quite natural that he, after so large an experience, should have met with greater success than the general operator. Then the method had been put to unfair tests. For instance, he had known patients to be allowed to go about immediately after rising from the bed, seven or ten days after the operation, without any support. They had even been instructed to cough or strain in order to test whether or not the hernia would recur. A second error was the anticipation of the cure in old herniæ by a single injection. In these herniæ the sac was largely dilated and the canal shortened, and there was a funnel shaped opening at the internal ring—conditions most favorable for the protrusion of the hernia—and it was very necessary to continue wearing a support. It was cases of oblique inguinal hernia of

recent date, in which but few pathological changes had taken place, that were most readily cured by this method. That many errors had been committed in the performance of the operation he had abundant evidence. One error in operating consisted in puncturing the scrotal tissue invaginated by the finger, instead of inserting the needle directly into the canal. In order to enter the canal without injuring the cord he deflected this for convenience to the outer side, instead of to the inner, as advised by Heaton. Immediately and for some moments after withdrawing the needle he made firm pressure over the point of entrance to prevent the return of the fluid in the track of the needle. Some English surgeons laid the sac open and smeared it with the fluid, but there was nothing to be gained by this method, while it added danger. The reader had never observed abscess develop from subcutaneous injection. He employed a particular syringe with which to make the injections. The subsequent management of the case was as important as the manner in which the operation was done. The strengthening of the walls of the canal was a slow process, and not to wear a support, at least for some time after the operation, was only to invite a return of the hernia. On the other hand, too firm pressure was to be avoided as tending to weaken the tissues which it was desired to strengthen. The patient should be confined a week or ten days, and longer in extreme cases. He had usually employed during this time the bandage devised by Heaton. Last March he had called attention to a modification of Heaton's method which he believed to be important. It consisted in making repeated injections of a small quantity of the fluid when the patient had to continue at his business, and causing him to wear a truss in the mean time. His conclusions from seven years' experience with Heaton's method, during which time he had employed it in over a hundred cases, were : 1. That it was free from danger. 2. That over forty-five per cent. of all cases could be cured by it, and in select cases fifty to seventy-five per cent. 3. That many extreme cases uncontrollable by means of a truss could be brought under control by the operation. 4. That it was followed by improvement in almost every instance. 5. That children not cured by mechanical means could in almost every instance be cured by Heaton's operation.

Dr. R. F. Weir said that the last time he looked over his records he had performed Heaton's operation seventy or eighty times, and the proportion of cures was between one-third and one-half—nearer one-third than one-half. At first he had made some of the errors in operating mentioned by Dr. De Garmo ; in one instance he had inserted the needle so far as to inject some of the fluid into the abdominal cavity and set up inflammation. The patient died some months later from another cause, and at the autopsy there was evidence of his having injected the fluid into the omentum. He employed Heaton's bandage sometimes, but preferred superimposed strips of adhesive plaster. Where the hernia was large, he thought the open method was the better. In general, his experience confirmed the views of the author.

Phlegmonous Erysipelas.

Dr. G. N. Macomber, of Syracuse, kindly sends us the following history:

Mr. M., age 44, health unusually good. Jan. 10th, a very cold night, as he was about to retire raised his night shirt to warm his back by the stove; in

so doing he accidentally backed up too far, coming in contact with the stove, which burned the buttock about four inches in length by three-fourths of an inch wide. Thinking this but a slight burn, he applied a simple ointment, and went about his work as usual; it did not get better, however, and the 16th—six days later—was called in. Found patient in bed with high fever, severe headache, in fact erysipelas had set in and formed a complete belt around the body, including the hips and sexual organs. During the next six or eight days the temperatures ranged from 103° to 104½°, attended with stupor and low form of delirium.

About eight days after my first visit my attention was called to the genitals, where I found the scrotum enormously swollen and the entire base of it black and gangrenous; I at once ordered elm and charcoal poultice applied and Fowler's solution and carbo. lig. internally, quinine and iron were also taken. In about two days a line formed around the upper portion of the scrotal sack, near the root of the penis. The slough began to separate the dead from the healthy tissue, and in about four days the entire scrotum came off in a body, leaving the testicals and spermatic cords entirely exposed. As soon as the sloughing began the fever abated, the tongue became normal, appetite returned and rapid improvement could be seen. A wash of potass. permang. soon removed the fetid odor which had been almost unbearable in spite of the charcoal. We now dressed the parts with carbolized vaselin, and the raw edges of the scrotum began to granulate. So rapid was the formation of new tissue, that in two weeks the testicles were nearly half covered with a "brand new scrotum," of which the patient is now very proud.

March 10th, patient is able to go down town, and the testicles are now all covered.

I report this case because complete sloughing of the scrotum from this cause is rarely found in practice, at least they are not reported. Ashhurst in his Encyclopædia of Surgery reports a similar case, this being the only case I find reported.

On the Final Results of the Operation for Cancer of the Lip.

Dr. A. Woerner (Tübingen): In the Tübingen Surgical Clinic no less than 277 operations for labial cancers have been performed, of all of which the author has been able to obtain recent histories. This subject matter he makes use of for statistical considerations in the present paper. The total number of cases of labial cancer admitted to the hospital amounted to 305, but 28 of these were inoperable.

The entire number of cases is condensed in tabular form, and occupies fifty-three pages—more than half of the number covered by the entire article.

Several smaller tabular synopses representing different statistical points of interest are distributed throughout the paper, and charts bear witness of the diligence with which the statistics have been compiled.

A few of the figures given may be mentioned here.

Ninety and 15-100 per cent. of the number affected were males. The most frequent age was between 65 and 70. Ninety per cent. were exposed to injuries and the inclemencies of the weather. Of 69 men 51 were mentioned as smokers, 18 as non-smokers. Injuries were believed to cause the malady in 11 cases.

Of the 305 cases, 289 cancers were situated on the under lip, and only 16, or 5.2 per cent on the upper one.

The operation generally consisted in cuneiform excision of the tumor (224 cases). Plastic operations were performed sixty-nine times.

Of the 277 cases operated upon in the clinic 111 individuals were attacked by recurrences of the disease, and some repeatedly. These recurrences generally took place within the first year.

As regards the results of the operation, the mortality amounted to 5.77 per cent. Only three of these cases, however, belong to the antiseptic period. Most of the deaths were due to advanced age and severe surgical operations, such as the removal of the maxilla.

The average length of time that the patients continued to live after recovery was 8.4 years; six patients lived to be over 80.

Taking three years as an ample period for recurrence to develop, 106 cases were completely cured, or 57.7 per cent. of the whole number.

The author finally adds statistics obtained from the entire number of operated labial cancers heretofore published, which is 866.

The results of this comparison are very similar to those obtained from the Tübingen Clinic.—*Beiträge zur Klin. Chir. Mitth. aus der chir. Klinik zu Tübingen.—St. Louis Medical and Surgical Journal.*

Removal of Callus by the Galvanic Current.

The *Medical Herald* says that Dr. MEYER, of Berlin, records the following case (*Deutsche Med. Wochenschrift*): A boy, thirteen years old, had sustained a fracture of the upper arm. After a plaster-of-Paris bandage had been applied, the arm was in three weeks so far healed that the lower and upper arm stood at an angle of 80°, the wrist being tightly drawn up, and the fingers lying without power or motion on the hand. Attempts had been made in vain to produce extension. When he was brought to Dr. Meyer, the latter discovered on the inner side of the elbow-joint a callus that occupied a third of the lower arm, and had included the flexors of the fingers, thus depriving them of active and passive motion. On the application of the induction current to the upper arm there was considerable movement in the muscles supplied by the radial nerve. When the ulnar nerve was brought under the influence of the current, a slight movement of the abductor pollicis was observable, while irritation of the median produced a tingling sensation down into the hand. The galvanic treatment was as follows: The arm was laid on a conductor of the size of an octavo sheet, and a small electrode was applied, partly to the median nerve and partly to the callus. Frequent voltaic alternatives were employed. After sixty applications the boy could stretch out his arm fairly straight, and the place of the fracture could now be plainly felt on the inner side of the upper arm. After ninety applications the callus was reduced one-third, the active movement of the elbow-joint was nearly restored, and that of the wrist considerably improved. After one hundred and eighteen applications the muscles generally were in so good a condition that there could be no reasonable doubt about the perfect restoration of the use of the hand. This, Dr. Meyer thinks, shows that of all means the galvanic current is the most intensely sorbefacient.—*Med. and Surg. Reporter.*

A Case of Re-injection of Blood during Amputation at the Hip-joint, with Rapid Recovery.

DR. A. G. MILLER, Edinburgh:

In a case of strumous disease, affecting both hips, the left knee and the left

elbow, with a large abscess connected with the left hip, the patient being in very feeble condition, amputation at the latter joint became necessary. The limb having been exsanguinated to the middle of the thigh, and a powerful elastic tourniquet applied at the groin, a rapid circular cut was made right down to the bone in the upper part of the thigh, the femur sawn through, the femoral artery and some smaller vessels tied, and the tourniquet removed; some hemorrhage still occurring from a few small vessels, they were also ligatured. All the blood which escaped, both from the femoral artery and the smaller vessels, amounting to eleven ounces, was caught in a vessel containing a solution of phosphate of soda and re-injected into the deep femoral vein. By an incision on the outer side of the thigh, the head of the femur was then dissected out. The wound was dressed antiseptically. The patient suffered no shock whatever, nor depression of temperature after the operation. For the first few days he was flushed and had a fuller pulse than before the operation, but he had no rise of temperature. The weakness and the anæmia of the patient, together with the increased vascularity of the parts due to the disease, rendered it very likely that he would not have survived the operation, had not the greater part of the blood lost been re-injected—the fact being that from the exsanguification of the leg, together with the re-infusion, there was probably an ultimate gain of blood after the operation.—*Edin. Med. Jour.—Annals of Surgery.*

Removal of Moles and Warts by Electrolysis.

VOLTOLINI uses a battery of five elements. Two kinds of needles can be used, one of platinum, the other of steel. The latter needle is intended for very hard warts, and must be attached to the negative pole to avoid oxidation. Moles and warts must be soaked in water. The needles must never be introduced deeper than the level of the skin, nor be allowed to touch one another. The action of the galvanic current may be continued from five to ten minutes at most, the needle being pushed in different directions, whilst water is allowed to drop on to the part operated on. In from two to four minutes, the substance of moderately soft warts becomes pulpy. This is the indication for the operation to stop. This pulp dries up, becomes black, and in a week or fortnight falls off.—*Boston Med. and Surg. Journal.*

VENEREAL DISEASES.

A New Treatment of Gonorrhœa.

CASTALLAN, of St. Mandrier Hospital, starting with the view now popularly entertained, that gonorrhœal urethritis is a parasitic disease, and being led by observation to believe that the microbe can only live in an acid medium; finding, moreover, that in this disease the discharge is, as a rule, acid, proposes to treat gonorrhœa in the acute stages by urethral injections of sodic bicarbonate, three or four injections being made daily of a one per cent. solution. For this treatment, which is but a logical inference from the premises, he claims remarkable success, although the cases on which it has been tried in St. Mandrier, as yet, number only a dozen. The injections of bicarbonate of sodium are commenced as soon as the discharge appears, or the patient comes under observation; the urethral secretion is tested every day with litmus-paper, and the injection is kept up till the discharge becomes alkaline or neutral. For internal treatment the patient is given flaxseed tea, with occasional doses of bromide, if there

seems to be any indication for the sedative effects of this salt. His conclusions are as follows :

1. The urethral pus in the first stages of the disease is generally, if not invariably, acid ; this acidity is quite pronounced.

2. The treatment by bicarbonate of sodium rapidly lessens the discharge ; it also rapidly diminishes or removes the pain in micturition.

3. In old urethrites, and in those which have been treated by the usual injections, it speedily brings about a cure.—*Boston Med. and Surg. Journal.*

[This mild alkaline injection commends itself as a rational form of treatment. And from its antagonism to germ life, it is soothing to inflamed mucous surfaces. Still, it is well to bear in mind that very good results have been obtained from the injections of simple warm water.] A. H. P. L.

The Cotton Compress in Orchitis.

In a recent number of the *Revista Argentina de Ciencias Médicas*, Senor José M. Escalier gives an account of a very successful method of treating orchitis and epididymitis by means of a cotton compress, which has been for some time in use in Dr. Montes de Oca's wards, in the Hospital de Clinicas, in Buenos Ayres. The idea was taken from the cotton cap or suspensory bandage of Langlebert. The apparatus is applied as follows : The neck of the scrotum is first secured by a bandage and strapping, the testicles being thus driven downwards. The scrotum is then enveloped in a silk handkerchief, outside which a thick layer of cotton wool is applied, and the whole covered with a gutta-percha cap. Strips of plaster are now passed round in a circular manner, so that the ends can be drawn more or less tightly before being fixed, in order to exert a compressing force on the glands. In the first stage of orchitis, when there is not much epididymitis, the compress arrests the inflammation and brings about resolution rapidly. The cases in which this occurred, however, were but few, as nearly all the patients who presented themselves at the hospital had passed that stage. In some cases of acute orchitis, very moderate compression was resorted to with success, but of course the pain was very great and the patients did not bear it well. In these cases the best treatment was found to consist in making a number of punctures to give exit to the liquid in the tunica vaginalis, together with some blood, then to surround the scrotum with ice, and to give a purgative. After this treatment has reduced the inflammation, the cotton compress can be applied with advantage. With practice the degree of tension required in each case can be adjusted to a nicety, and in twenty-four hours the swelling will generally have diminished so much that it is necessary to reapply the compress. After two or three of these reapplications, the testes return to their normal size, and a slight induration of the epididymis is all that remains. The cure is usually complete in a week, or even less. The cotton compress has been used in more than a hundred cases, and is, according to the writer, more satisfactory than the ordinary methods of treatment. Even in chronic cases, it is astonishing to see the rapid effect that it produces. It has also been successfully employed after tapping hydroceles.—*Med. and Surg. Rep.*

Points in the Treatment of Gonorrhœa.

It will be well to paste the following recommendations of Dr. Otis in your hat, that you may have them always handy for reference :

1. Fully explain to the patient the inefficiency of popular remedies, and the dangers attending their use.

2. Secure absolute personal cleanliness, thereby preventing infection of other parts, and insist upon as nearly perfect rest in bed as the exigencies of the case will permit.

3. Soak the penis frequently in water as hot as can be borne, but more especially during the act of micturition.

4. Recommend milk as a diet, and prescribe alkaline diuretics and mineral waters as internal medication.

5. Secure absolute freedom from sexual intercourse and from thoughts associated therewith.

Perfect faith in and obedience to these simple formulæ, he insists, will insure a successful ending of all uncomplicated cases before the seventh week.—*Medical and Surgical Reporter.*

DISEASES OF THE SKIN.

The Treatment of Acne.

Dr. John Kent Spender thus writes in the *Lancet :*

In order to promote a healthy action of the sebaceous glands, and to prevent the formation of what are called "comedones," the following plan should be adopted, as originally described by Dr. Liveing. The steps of his method are as follows: (*a*) Steam the face every night by holding it over a basin of hot water for a few minutes. (*b*) Rub the skin for five or ten minutes with soap (I prefer terebene soap) and flannel, or with a soft nail brush ; then sponge off the soap with warm water. (*c*) When the face has been dried, a lotion should be applied, composed as follows : Half an ounce of precipitated sulphur, two drachms of glycerine, one ounce of spirits of wine, with three ounces each of rose water and lime water. This is allowed to dry on the skin and remain on all night. In the morning the face is cleansed with warm oatmeal and water or weak gruel. If, for any reason, an ointment seems preferable to a lotion, a combination of precipitated sulphur and vaseline is very useful. The treatment must be modified or suspended for two or three nights, if the skin becomes sensitive and tender. Dr. Liveing contends that the most common cause of failure is want of perseverance or timidity on the part of the patient or of the doctor ; and that we ought not to be frightened from continuing efficacious remedies by a temporary increase in the redness and irritability of the skin. If, by any chance, this plan be unsuccessful, nothing is so effective as the application of potash soap in the form of a lotion. The lotion is composed of one ounce of soft soap, one ounce of rectified spirits of wine, and seven ounces of rose (or distilled) water. This should be rubbed in vigorously with a piece of flannel for a short time, taking care not to make the skin sore. According to Dr. Liveing, the worst cases of acne will yield to the soft soap treatment if practiced with necessary caution.

For eight years and more I have followed in its main outlines Dr. Liveing's plan, and with great success. But the experience which only actual work brings has led me to make modifications to suit the various susceptibilities and irritabilities of human nerves and skin. Some of these modifications I will now relate in the fewest words. In the first place, something is often required to be done during the daytime to pacify the heat and throbbing, which are part of the usual history of acne. An excellent lotion, the heritage of nearly every dermatologist, is made by combining oxide of zinc, calamine, prepared chalk,

lead lotion, and lime water, to which may be added a small quantity of glycerine. Let the bottle containing this be gently waved about so as diffuse the materials, which are only held in suspension ; then pour a little into a saucer, and with a sponge (reserved for the purpose), sprinkle the face from time to time. Wipe off, when necessary, with a bit of fine muslin, the powder which remains on the skin after the evaporation of the fluid, and the face may be washed occasionally with a little starch gruel. In the second place, the cases are not few in which it is better not to use any kind of soap as part of the evening ceremonial. After the face has been steamed, we may put on a medicated jelly composed of oxide of zinc, gelatine, and glycerine. It must be liquefied by putting the vessel that holds it into hot water, and then applied with a brush. Then, thirdly, there are some sensitive skins intolerant of sulphur in any guise. When this is so, we should think of combinations of lead, and chalk, and zinc, blended as a quasi-ointment with the finest vaseline. Dr. McCall Anderson's formula of oleate of bismuth with vaseline and white wax has been aptly described as "one of the most healing of salves." Sometimes nothing agrees better than the old fashioned, but capital substance called Kirkland's "neutral cerate," which is composed essentially of lead plaster and olive oil. Whatever combination may be chosen (and only a ripe experience with a sound judgment can decide), the ointment should be smeared all over the affected parts of the face immediately after the process of steaming, and allowed to remain during the whole night. For the acne, which is often a trouble to young women at the time of commencing menstruation, I prescribe the following ointment with much confidence : Ammoniated mercury, a scruple ; precipitated sulphur, a drachm : oil of the sweet almond, half an ounce ; and white vaseline to make two ounces. By methods such as the above, industriously carried out, an ugly, blotchy face may be commonly restored to a fair share of comeliness.

In the treatment of acne there is still room for those emollient "dusting powders" which once occupied an important place in the therapeutics of the skin. Equal quantities of oleate of zinc and pulverized starch, with a small percentage of precipitated sulphur, may be put on several times a day after moistening the surface with a warm, damp sponge. Now and then a quiet acne may disappear entirely in a few weeks without any other application. But the extreme forms of the so-called acne rosacea require a whole battery of new remedial forces, as it seldom yields to mild and coaxing means. I refer with much satisfaction to a paper published in the early part of 1885, by Mr. Tom Robinson. He advises no parley with an enemy which cannot be tamed or dislodged after inflammatory hyperplasia of connective tissue has once been set up. When inflamed papules are developed, a lotion should be applied occasionally, composed of bisulphuret of mercury and almond emulsion (two grains of the former to one ounce of the latter). When the congestive process goes on to suppuration, the face may be fomented with hot water ; and after the acute stage has subsided, a combination of a scruple of yellow oxide of mercury and one ounce of lard ought to be rubbed into the face, and continued every night so long as it may seem necessary. Mr. Robinson's favorite means for tranquillizing an angry skin, is a lotion composed of bismuth and glycerine of

starch, lessening the starch by three-fourths.

It is time to say a few words about internal remedies. It is a pity that so much attention must be given to the diet and the details of the cooking, as this is the real impediment in many instances to the attainment of even a moderate success. All food which is difficult to digest must be avoided, as the waste stuff which it contains is a source of physiological irritation and worry. Simplicity will best suit that "conscience of the body" called the stomach ; and regularity in the meals is of high importance. Alcohol and tobacco are usually superfluous, and sometimes poisonous ; but concerning the former an exception may be made in the case of strumous young men and women, to whom a little beer (taken with meals) is often quite valuable. I must insist upon the daily constitutional walk as a necessary article of faith and practice ; and I venture to add that systematic writers on diseases do not lay sufficient stress on the proper ventilation of houses and rooms (especially the bed room) as essential to the respiratory function of the skin. This function is thwarted and blocked when the surrounding air is deficient in quantity and chemically bad in its quality ; and we cannot wonder at the prevalence of acne and other similar skin diseases, when we call to mind the polluted elements which some people love to breathe.

With regard to the Pharmacopœia, the rule is almost absolute that arsenic is nearly the last drug which a practitioner should think of. Combined with perchloride of mercury, arsenic has a useful place in the management of dull inert acne in plethoric persons. Iron is often necessary, and can be conveniently given in one of two forms—either (*a*) as the ammonia-citrate, with an effervescing draught of citric acid and bicarbonate of potash ; or (*b*) as the sulphate of magnesia. The mild aperient action of the latter combination is a distinct help, and further aid in this direction is afforded by the pill of aloes and myrrh.

Sweating Feet.

Sweating feet may be cured, according to Fréderique by dusting the soles every morning with tartaric acid, powdered as finely as possible. A half-teaspoonful of the powder is sufficient at first, but the amount may be augmented after two or three applications.

[The oleates introduced by Dr. Shoemaker are very effective. The aluminium oleate is very good in bromidrosis; zinc oleate is another that can be used in excessive local sweatings.] A.H.P.L.

Treatment of Eczema in Children.

Eczema in children is very successfully treated by Widerhofer with a five per cent. lanolin and bismuth salve. This is thickly spread upon linen, and bandaged upon the part morning and night. Lanolin forms but a small amount of fatty acids upon the skin, while vaseline and other fats readily produce fatty acids, which to the child's sensitive skin are very irritating.—*Allg. Wiener Med. Ztg.—Ther. Gaz.*

[We would here laud the uses of the oleates. The lead oleate is especially good in relieving the most distressing symptoms of eczema in children. The aluminium and the iron oleates are good astringents. The silver oleate also relieves intolerable itching in this disease. The zinc oleate is very serviceable in cases of acute vesicular emphysema.]

A. H. P. L.

For Falling Hair and Dandruff.

The following is said to be beneficial as a hair tonic : Borax, 15 ; glycerine,

30 ; decoction of soap bark, 50 ; bay rum, 10 ; water q. s. to make up 300 parts. Apply this lotion at bedtime with friction of the scalp by means of a moderate hard hair brush.

In the morning apply the following pomade : Tannin, 2 ; tincture of cantharides,5 ; balsam of Peru, 5; expressed oil of mace, 3 ; vaseline, 50 parts; essence of lemon and bergamot q. s. to taste. Dissolve with gentle heat the vaseline and expressed oil of mace, mix together the tannin, tincture, balsam of Peru ; perfume and stir into the melted fat as it gradually cools.—*Progress.*

Treatment of the Erythematous Condition of the Hands which Precedes Chilblain.

As soon as the weather becomes cold Besnier has the sufferers from this malady employ the following plan of treatment (*Jour. de Méd. et de Chir.*): The feet or hands are to be bathed in a decoction of walnut leaves and then dried, and spirits of camphor applied. Then the parts to be covered with a powder of 90 parts of starch and 10 parts of salicylate of bismuth. If there are much discomfort and pain, before applying this powder, the hands are to be bathed with a lotion of glycerin, aquæ rosae, āā 50.00 parts, tannin 10 parts. —*N. Y. Medical Journal.*

DISEASES OF THE EYE AND EAR.

Persistent Vomiting as a Cause of Ear-Troubles.

Vomiting is not usually included in the list of causes which occasion catarrh of the middle ear. It is well known that aural affections frequently complicate general wasting diseases, especially in their final stages. The pharyngeal muscles waste along with the body, and the sufferer's last days are aggravated by distressing tinnitus and vocal reverberation. Whenever any movement occurs in the throat, nose, or mouth, the sound is conveyed to the tympanum up the unduly patent Eustachian tube, causing an unnatural ringing and roaring noise in the ear. Added to this cause, Mr. Charles Atkin (*British Medical Journal*) suggests that while undue patency of the Eustachian tube will in many cases account for the symptoms complained of, the impaction of minute particles of regurgitated food or mucus in the tubes during the act of vomiting, may also serve to produce aural complications. In the simple act of vomiting the contents of the stomach are not unfrequently ejected from the nostrils, and the tubal orifices may easily become plugged. Should the act be repeated constantly, as often happens in all renal and cerebral affections, the plug may be driven still farther up, until it becomes lodged at the narrowest part, at the junction of the cartilaginous portions with the bony part of the tube.

Mr. Atkin reports two cases in which such a complication occurred. The right ear, and then the left, became successively affected through the plugging of the tubes.—*Therapeutic Gazette.*

[A case of tinnitus has recently left our hands that had been under treatment for months by a competent and well known aurist. In addition to his treatment, she had the benefit of faradization and galvanism. Direct faradization of the corotid produced decided but only temporary relief. The cause was supposed to be a lack of tone of the corotid. She was young, feeble and emaciated, the appetite was poor. She was greatly discouraged. All her muscles were relaxed, including those of the pharynx. She was put on a grain each of quinine, powdered digitalis and reduced iron three times a day, and made a rapid and astonishing recovery. This seems to have been a case of tinnitus due to atonicity.] A. H. P. L.

FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

A Case of Double Hare-Lip.

DR. DANIEL LA FERTÉ (*The Medical Age*) :

By the exercise of a little tact and judgment we obtain results in these cases as gratifying as any in plastic surgery.

Among others I select from my notebook the case of a little child, three months old, which was brought to me from Canada. It was a case of double

Fig. 1.

hare-lip, with a fissure through the whole of the alveolar border of the jaw corresponding to the fissure on the left side. There was severe advance of the right side of the bony cleft in front of that of the left side, and well-marked depression of the left wing of the nose (Fig. 1). The parents readily consenting to an operation, the little one was placed under an anæsthetic. The little island under the nose was pared all around its circumference. A piece of soft leather was then placed over the projecting alveolar process, to avoid bruising, and by means of firm pressure with the handle of an instrument, it was fractured and forced backwards into as perfect coaptation as practicable with the other side of the fissure. No sutures were used here, as the fragment manifested no tendency to displacement. I felt safe then in trusting to the pressure which the sutured lip would exert upon it to have it retain its place. The next step of the operation was to split the soft parts corresponding to the left fissure, and make a flap along the margin of the right fissure, in other words following Colles' method, which is familiar to all surgeons.

The little flap on the right side was stitched partly to the lower part of the little island under the nose, and partly planted into the slit made on the left side. Finally, the raw edges of the clefts were stitched to the sides of the little island above mentioned, which completed the operation. The parts were supported by means of adhesive plaster, which was removed every two or three days. At the end of the twelfth day all sutures were removed and complete healing had taken place.

At the end of the third week the mother being very anxious to return home, I had the little one photographed. His appearance at that time is shown in Fig. 2. It will be seen by that plate

Fig. 2.

that the scars are yet quite visible. Three months after the operation the mother brought the little patient to my office, and at that time scarcely any scar

was to be seen, even the little dimple in the centre of the lower border of the upper lip having disappeared.

A New Operation for Hare-Lip.

Dr. A. H. Cordier, Windom, Kansas: The operations that have been devised and performed for removal of the deformity known as hare-lip, are numerous, and it seems almost superfluous to place before the reading surgeons another method of operating on this, most of all unsightly deformities. Dr. Vander Veer in "Reference Hand-Book of the Medical Sciences," says of hare-lip: "It is a deformity that from its peculiar prominence has brought more sorrow to the hearts of parents than perhaps any other of nature's defects. To the surgeon it has been the source of more

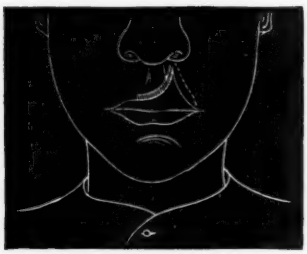


Fig. 1.

thought and care in the operation for its relief than many surgical problems of far greater importance."

It is a well-known fact that no special operation can be made to apply to all varieties of hare-lip. The operation I shall describe is one best suited to a single fissure, and is thus performed.

After anæsthetizing the patient, begin by making an incision from above downwards as in Malgaigne's or Colles' method, but instead of, at lower part of fissure, stopping, carry the incision outward on the right side (the deformity being usually on left side) to a point midway between the lower angle of the cleft and the corner of the mouth, and cut the flap off squarely as shown in Fig. 1.

The flap on the left side is to be made in a similar manner, but is not to be cut off as on the right side. See Fig. 2.

Fig. 2.

The surfaces are to be adjusted and retained in position during the process of healing by interrupted sutures of catgut, ordinary hare-lip pins and adhesive plasters. The flap on the left side completely bridges over the perpendicular wound and thus secures perfect coaptation of the parts, a nice vermillion border, and does not leave the notch so much dreaded by surgeons and patients after an operation for hare-lip in the usual manner. I say after operations by the usual way, because I have seen very few cases operated on by Colles' or

Fig. 3.

Malgaigne's method without more or less deformity remaining as a notch at the lower end of the cleft

I have operated twice only by the above method, but the results in both

cases were very satisfactory. The appearance of the lines of incision when the operation is completed, is represented in Fig. 3.

I believe in a single fissure the operation will be found to give better satisfaction to the surgeon and his patient, than any other.—*Kansas Med. Record.*

On the Union of Fractures and the Healing of Wounds in the Territories.

DR. R. W. SHUFELDT (*New York Medical Journal*):

After ten years and more, during which time I accumulated all the reports and reliable evidence that I could, I came to the conclusion finally, that this tardiness in the union of broken bones among people who had resided for a number of years in the territories, was largely due to the action or presence of the strong alkali held in suspension in the water which they were constantly obliged to drink.

The view that this alkali will profoundly affect other tissues of the economy, is sustained by the observations of those dentists (often very excellent ones) who have from time to time made a tour of the military stations in these regions. These people say that there is no question that this strong alkali water has its deleterious effect upon the teeth, softening the enamel, producing a rapid caries, and often destroying in an incredibly short space of time a set of teeth that had previously been noted for their soundness. The femur and clavicle especially seem to fall into this category, and I have met a number of surgeons whom I have heard say that they had had in their practice at least three or four cases wherein they were obliged to resort to special means in order to produce union in fractures of the former bone.

On the other hand, it seems to me that ordinary incised wounds, amputations, and the like, heal sometimes with the most marvelous rapidity. To instance this, I can recall a case that I saw some time during the summer of 1878, at Fort Fetterman, Wyoming. A young man of some eighteen or twenty years of age, while engaged in a quarrel, was stabbed three times with a large jack-knife with a blade some four or more inches long. The first wound passed deep into the left lung just below the heart, the second stab entered the abdomen from behind and passed below the stomach, while the last wound entered the left hip joint. These several injuries were simply treated with antiseptic dressings, and, strange as it may appear, this man was up and about on horseback on the morning of the ninth day, with all three injuries completely healed. A history of this case is on file in the Surgeon-General's office of the army, and I illustrated it with drawings of the knife and the location of the wounds.

Only last Sunday I was called upon to amputate the right thumb of a young healthy German, a man of about twenty-five years of age. He had accidentally shot himself with a 0.45 calibre carbine through the distal joint of this digit, and I disarticulated the member at the metacarpo-phalangeal articulation, the only antiseptic used during the operation being the sponging with the solution of corrosive sublimate, 1 to 1,000 parts of water; this also formed the sole subsequent dressing.

To-day, just one week after the original injury, this wound, or rather amputation, has completely healed by first intention, and that, too, without a single sign of any suppuration having taken place whatever, and only a drop or two of clear serum on the third day stained the absorbent cotton dressing. There is not the slightest evidence that an abscess will form in the hand, nor

has there been a particle of swelling since the second day, and even what there was then has now entirely disappeared. I have heard of such cases before, though really never fully credited them ; but here was an amputation that healed absolutely by first intention, and without the slightest sign of any suppuration. This is the history of a great number of these cases in this western country, by which I mean that they heal very quickly and very kindly, some suppuration taking place in a majority of instances, of course. In the case I have just cited, I would say to the uncompromising Listerites that the amputation never saw the carbolic spray, nor was it at any time during the week it took to heal ever enveloped in the several layers of dry goods insisted upon several years ago by those extremists in antiseptic surgery.

Dislocation of the Humerus Reduced by Right-Angle Traction.

In his memorandum on the above subject, in the *British Medical Journal*, says Dr. E. H. Lloyd, Fleet Surgeon W. Digby Longfield speaks of "steadying the shoulder with his left hand." Now, as I think that the acromion has not hitherto been sufficiently made use of as a point at which the scapula may be fixed and counter extension be advantageously applied, I venture to bring forward, without claiming any merit of priority, a "variety" of the right angle traction method of reduction which I first tried in 1859, when house surgeon at the London Hospital, and have used since then in my army practice. It is briefly as follows : The patient being seated, the surgeon stands by his side, places the palm of his right hand above the inner condyle of the humerus, grasps the arm, and raises it to a right angle with the patient's trunk ; he grips the patient's wrist firmly between his own arm and right side. Then having placed the upper margin of his left palm on the prominent acromion, he makes steady traction on the arm to disengage the head of the humerus from its abnormal position, at the same time making counter pressure on the acromion in a direction inwards and somewhat downwards ; the head of the bone is then lifted into the glenoid cavity by making use of the patient's arm as a lever of the third kind, the fulcrum being at the wrist, firmly fixed to the side of the operator.

The force required for reduction by the right angle methods is, as stated by Dr. Macleod and Fleet Surgeon Longfield, comparatively small ; but, with the hand on the acromion considerable traction power can be used, if necessary ; the surgeon's knee too may be placed against the axillary border of the scapula.

It is time that the old heel-in-axilla method should be altogether discarded ; it can not but tend to produce further laceration of ligaments and muscular fibres.—*Medical and Surgical Reporter.*

Treatment of Old Dislocations of the Elbow.

Prof. L. A. STIMPSON, in an article published in *N. Y. Medical Journal*, says in conclusion :

In drawing conclusions from this scanty record of only five cases, we may be somewhat aided by the results of similar operations at other joints, and in other forms of dislocation at the elbow. In several (five or six) cases of isolated dislocation of the head of the radius, arthrotomy has been done with good results, both as regards the reduction of the dislocation and the restoration of function, although the latter has never been complete. I know of only one case (Burkhardt's) in which a

dislocation at the shoulder has been reduced by arthrotomy, and in this the functional result left much to be desired. In another (Albert's) fracture of the surgical neck of the humerus took place during the operation, and the patient recovered with a pseudarthrosis, and in a third (Thiersch's) the operation failed. At the ankle, the astragalus has been successfully replaced by arthrotomy by Dr. McBurney, in a recent dislocation; and the operation has been done several times with success at the metacarpal joint of the thumb. In a case of thyroid dislocation of the hip, Polaillon lost his patient by acute septicæmia. In a case of dorsal dislocation, of nine months' standing, in a child seven years old, Dr. McBurney successfully reduced by arthrotomy, but the head of the femur subsequently became carious and was removed. The success in Volker's and Trendelenburg's cases, in which the olecranon was divided, was fairly good, and the divided process reunited promptly and well; but in mine the union was only fibrous, and the fixation of the upper fragment was such that the limb had to be dressed in semi-extension, and to this I attribute the recurrence of the displacement. Probably the difficulty might have been avoided by a more free liberation of the upper fragment, from which I refrained, because I did not think it necessary and did not anticipate the consequence which followed. The method gave easy access to the joint and a good view of the adhesions that needed to be divided; but in another case I should give the preference to the method by two lateral incisions, without division of the olecranon.

The only facts in this brief record that may actually contra-indicate resort to arthrotomy are the death of Polaillon's patient, and the change in the articular cartilage observed at the second operation in my case. Of the former it is sufficient to say that the case was of six weeks' standing, and had been subjected to several attempts to reduce under chloroform, the last one three weeks before the operation, and that the region of the hip was still tender and swollen; the patient was delicate and alcoholic. The incision was made in front, from the anterior inferior spine of the ilium downward, and during the operation the dislocation was transformed into a dorsal one. Apparently, the operation was done with scrupulous attention to antiseptic details, and the occurrence of fatal acute scepticæmia (with emphysematous gangrene) was probably due to extensive bruising and laceration of the soft parts; the record of the case indicates that the parallel between it and operations upon tissues that have recently been subjected to violent traumatism is close.

The change in the articular cartilage observed in my case could hardly have been caused by the inflammatory reaction following the operation, for that was not sensibly greater or more prolonged than after the original dislocation. I am inclined to attribute it rather to the keeping of the knife too close to the bone in the separation and freeing of the soft parts, and I think, therefore, that in a similar case it would be better to divide the adhesions than to separate them from the humerus. The reported cases are too few to justify much generalization, but the large measure of success which they have furnished is an encouragement to further trial. In the meantime, the rules of conduct in the presence of old backward dislocation of the elbow formulated by Albert appear to be judicious. He says that in elderly patients he limits interference to rupture or subcutaneous division of the adhe-

sions, and that, if reduction then fails, he forcibly flexes the elbow to a right angle, with or without fracture of the olecranon, and allows it to become ankylosed in that position. In younger patients he makes the attempt to reduce, sometimes dividing the tendon of the triceps, so as to avoid fracturing the olecranon; reduction failing, he does an arthrotomy, with two lateral incisions, and, if this also fails, he proceeds to resection.

To this I should wish to add the caution that an arthrotomy should not be undertaken until after the tissues have entirely recovered from the inflammatory reaction or the fresh lacerations of the original injury, or of attempts to reduce; and that the longer the dislocation has lasted, and the younger the patient (under fifteen years), the less is the probability that arthrotomy will be sufficient, and the greater is the probability that excision will be required. In old incomplete outward dislocations little good is to be hoped for from anything but arthrotomy, for the common interposition of the fractured epitroclea cannot otherwise be overcome, or the cicatricial obstacles on the inner side be removed. The choice will, probably, lie between improving the attitude by forcible flexion of the limb, if extended, and arthrotomy, the internal incision being made in front of the trochlea, rather than upon the side.

On Inguinal Hernia.

It is extremely difficult to find a subject that has a well developed or beginning inguinal hernia on one side, and at the same time no signs of the enlargement of the inguinal canal on the other. Albert uses to mark such cases in his clinical lectures as great rarities.

He would classify the cases about thus:

1. Perfectly developed hernia of both sides. Interesting in this class are those cases where one h. exists since years as a scrotal h., while the other one which developed later lies in the inguinal region, does not press into the scrotum and persists as a bubonocele.

2. Plainly developed h. on one side; an interstitial h. on the other; that is to say: an open inguinal canal, and during coughing a plain push of an hernial tumor which is yet within the abdominal wall.

3. Interstitial h. on both sides.

4. Perfect or interstitial h. on one side; on the other side abnormal width and configuration of inguinal ring and plain push, though not yet a palpable tumor, at the moment of coughing.

Of course the cases of the fourth class do not yet represent double sided h.: we can only speak of h. if there is a tumor; A. therefore actually speaks of an interstitial h. when the lower end, the point of the h., can actually be felt as a tumor, especially when the pat. stands and exerts abdominal pressure. Yet a truss should also be worn on the second side by the pat. in the 4th class. One must suppose that an h. is forming, this is confirmed by known cases where interstitial h. actually developed on that side where no truss was worn. A. never omits to examine both groins, and finds many interesting details. One finds among other things in interstitial h. the inguinal ring quite round and the fibrae intercolumnares pointing not downward and medianly but backward, so that the plane of the inguinal ring is nearly horizontal; there are further many different details concerning the form of the groin bulging by cough, the formation of the hypogastrium, etc.

The fact that inguinal hernia is frequently double-sided has been noted quite early; it has also been stated by

former writers how inguinal h. develops on one side, while a truss is worn on the other. A. wishes the one sided truss to become a rarity. — *Wiener Medical Presse.—The Foreign Medical Press.*

Differential Diagnosis of Gastric Ulcer and Cancer.

KORCZYNSKI and JAWORSKI having made an examination of the details of 52 cases of gastric ulcer and 28 cases of carcinoma of the stomach, come to the following conclusions as to the diagnostic symptoms of each:

Ulcer.	*Carcinoma.*
1. A high degree of an acid gastric catarrh.	1. Very marked mucous catarrh, except in young persons.
2. Unusually large amount of HCL, and very energetic digestive power of the gastric juice.	2. Complete absence of HCL, and diminution of the formation of pepsin.
3. Blackish-brown coffee ground vomit, with a smell of peptonized blood, and with destruction of the red blood cells.	3. Light, chocolate, colored vomit, smelling of fatty acids, and with remnants of red blood cells.
4. Appetite preserved or abnormally increased.	4. Appetite much diminished.
5. Excessive thirst.	5. Usually no thirst; often a desire for acids.
6. Burning, cutting, often pressing pain of great intensity.	6. Dull, continuous, pain, with a sense of pressure.
7. Usually no palpable tumor.	7. Usually a painful tumor to be felt.
8. Vomiting in most cases.	8. Vomiting in one-half the cases.

— *Weekly Medical Review.*

Death from Whitlow.

DR. R. H. A. HUNTER thus writes to the *British Medical Journal:*

W. P., aged 7, was brought to my consulting-room on the evening of October 6, 1886, suffering from a small whitlow on the ring finger of his left hand. On examination, I found the whole left hand and forearm œdematous and inflamed in patches. The temperature was 101°, the pulse 120, and the tongue was thickly coated. Having made an incision on either side of the distal phalanx down to the bone, and ordered linseed poultices with frequent warm water bathing, I prescribed a calomel and compound jalap powder, with a saline mixture containing small doses of aconite. On the 9th, the temperature and pulse became normal. The patient was then put upon quinine, steel and port wine. On the 10th, the œdema of the hand and arm had disappeared, and the finger looked comparatively healthy. On the 11th, retching and vomiting set in, without any increase of either pulse or temperature, and continued unabated in spite of the use of such remedies as bismuth, cerium, hydrocyanic acid, opium, etc., until the morning of the 12th, when death took place from exhaustion, although beef tea and port wine were frequently administered by enema. From first to last there was neither swelling nor tenderness of any part of the abdomen, and head-symptoms were entirely absent, the child being conscious to the last.—*Med. and Surg Reporter.*

Arsenical Treatment of Malignant Tumors.

DR. F. KOEBEL, of Tubingen, reviews the results obtained at the Tubingen Clinic (Prof. Bruns) in the treatment of certain malignant neoplasms by means of internal administration of arsenic.

As regards epithelial carcinomata various experiments were made at one time or another in inoperable cases of mammary disease, with local injections of arsenic; but in no cases were favorable results recorded.

Sarcomata, excepting those of the lymphatic glands, have likewise generally been regarded as incurable by means of arsenic. But the author gives a case of a man 39 years of age who presented multiple sarcomata in rapid growth when admitted to the hospital, and who was completely cured after three and one-half years' time by com-

bined local and internal administration of arsenic. The diagnosis was assured by microscopical examination of an exsected portion.

Lympho-sarcomata were not influenced in their course by arsenical treatment, as was proved by the observation of several cases.

The greater part of the paper is devoted to the consideration of malignant lymphomata, in the treatment of which arsenic has always played a conspicuous part.

In order to draw more correct inferences the author first reviews fifty-two cases collected from various sources, and then adds to this number seven cases of Prof. Bruns. He then preceeds to draw his conclusions. The ages of the patients varied equally between 7 months and 72 years. Males were twice as frequently affected as females. In twenty seven cases the neck alone was affected, in thirteen cases the whole body. Statements as to the presence of leucæmia are incomplete. The treatment consisted in internal exhibition of Fowler's solution, increasing to a maximum of 40 to 45 drops daily, and in parenchymatous injections, gradually ascending to 0.4 or 0.5 ctm. daily.

As to the results attained complete cure was observed in seventeen out of the fifty-nine cases; but in five of these, recurrences are recorded; in the others no further notes are made. The time elapsing before the cure was complete varied from one to six months. Recurrences varied in the time of their appearance from two to eight months.

In fourteen cases the recovery was partial. In twenty-eight cases out of the fifty-nine the treatment was altogether ineffectual. In some cases, however, the time for observation was too short.

The author concludes that the treatment should be continued for at least two months in order to ascertain whether it will prove of avail or not, and recommends the trial of medicamental treatment with arsenic in all inoperable cases of malignant lymphoma, and in certain ones of general sarcomatosis. Although many cases are not cured, some brilliant results have been obtained by this method.—*Beitr. z. klin. Chir. Mitth. aus. d. Chir. Klin. zu Tub.*—*Annals of Surgery.*

Antiseptic Surgery in Private Practice.

Dr. Sollace Mitchell, of Jacksonville, Fla., confesses (*Alabama Medical and Surgical Journal*, March, 1887) that he is enthusiastic over antiseptic surgery in private practice. He reports a number of cases which he thinks sustain his enthusiasm. But all his points are illustrated by his report of a case of operation for strangulated hernia, in which he shaved the pubes, washed the parts with soap and water, soaking his instruments in a 1 to 40 solution of carbolic acid. He then washed his hands and the parts to be operated on with a 1 to 500 bichloride solution, and isolated the parts with towels wet with 1 to 1,000 bichloride solution. Next he took his knife from the carbolic bath and performed the usual operation—the wound being occasionally washed out with fresh bichloride solution. The wound was sutured with catgut and a rubber drainage tube inserted. Iodoform was dusted over the wound, and then a piece of dry gauze, impregnated with naphthaline and alcohol, was placed over the wound, and this covered by a gauze which had been soaking in the bichloride solution. On the third day the dressings were removed, the wound was washed with bichloride solution while the drainage tube was being taken out, iodoform was dusted over, and it was quickly covered with dressings as before. And yet, with

all this, the temperature rose 100.5° on the second day, and the patient made a good recovery! He regards naphthaline as especially protective against erysipelas. Sponges must never be used but once until again rendered aseptic.

Potassium Chlorate in the Treatment of Epithelioma.

This method of treating epithelioma, which was brought forward in 1847, and again in 1857 and in 1863, and successively abandoned, has lately been resorted to again by M. RECLUS (*Gaz. des Hôp., Rev. Gén. de Clinique et de Thérap.*), who has had four successes with it, together with some failures. His conclusion is that it has no effect on epitheliomata seated on mucous membrane or at the junction of skin and mucous membrane, but that it is efficient enough to be tried on cutaneous epitheliomata in patients who are too feeble to endure excision or who decline to do so. He applies a supersaturated (six per cent.) solution.

A Pathognomonic Sign of Cancer of the Stomach.

A patient was shown at a recent meeting of the Société Médicale des Hôpitaux who exemplifies the condition said by German writers to be characteristic of cancer of the stomach, a condition found by M. Debove to be constant in such cases, and which he proposes as a pathognomonic sign of the disease. In malignant diseases of the stomach it will be found that hydrochloric acid is always wanting, whereas it lasts constantly during digestion in every other case. In M. Debove's patient this absence of hydrochloric acid enabled a diagnosis to be made at a period when there was no other symptom of cancer, and the disease was looked upon as dyspepsia, an opinion shared by M. Debove himself until he had ascertained the composition of the gastric juice. Since the beginning of the year, the man has been under observation, and the real nature of his disease, now constituted by a characteristic tumor the size of an egg, is no longer doubtful. In reply to questions M. Debove said that he obtained the liquid for examination by means of the œsophageal tube, and that the tests used for distinguishing the acids were those recommended by the Germans. A solution of gentian violet (1 to 5000) gives a blue coloration with HCl. "L'orange Poirier" in saturated solution gives a red reaction with the same acid. Lactic acid is recognized by the increased yellowing of perchloride of iron, and by change in color of a mixture of perchloride of iron and carbolic acid from amethyst blue to yellow.—*Medical and Surgical Reporter.*

[This is hard to believe. M. Debove is in all probability mistaken about the pathognomonic value of the absence of HCl.] A. H. P. L.

Plaster Jackets.

DR. VIRGIL P. GIBNEY, in the *Medical Press:*

A few general rules may not be out of place as practitioners cannot become too familiar with them.

1. Use the best dental plaster, and see that it has not been exposed to a damp atmosphere.

2. Employ the smooth crinoline for bandages, into which the plaster is rubbed.

3. Bandages from two to three inches wide and six yards long are the more easily handled.

4. Do not employ salt or any other agent in the water for the purpose of hastening the "setting" process. Use simply warm water.

5. Be sure that each turn is rubbed well into all the inequalities of the body,

and that each portion of the jacket is thoroughly rubbed before the "setting" is complete.

6. Use a skin-fitting vest next to the body.

7. Never make the walls of the jacket to exceed one-eighth of inch in thickness. In young children one-sixteenth of an inch will be abundantly thick.

8. Never rest satisfied with a poorly-fitting or heavy jacket, and lose no time in securing one that better fulfils the requirement.

An excellent corset can be made of plaster of Paris for convalescing cases, by cutting the jacket down the front and trimming up in the same manner the jacket for lateral curvature is trimmed. The leather or felt jackets are good substitutes, because they do not need renewing so often.

Tooth Powders.

Prophylactic medicine is of greater value to the public than curative, although they are slow to give it its due; hence the subject of tooth powders may be of some interest. The necessity of keeping the teeth clean, with a view to the prevention of future trouble, is overlooked by too many, even in the higher classes, sometimes from carelessness, sometimes from ignorance. Now, cannot the medical attendant do a great deal to combat this state of things? The dental surgeon is often asked, "How soon should the first tooth-brush be used?" "As soon as there are teeth to use it upon," should be the reply. An ideal tooth powder should be alkaline, since acids dissolve the tooth substance; finely pulverized, that it may not mechanically abrade; antiseptic, to prevent decomposition of food lodged between the teeth, and perhaps to destroy the microbes which are always choking the tubules of carious dentine; it should contain nothing irritating to the gums; and, lastly, it should be pleasant to the taste, or it will not be used. Fluid dentifrices do not, as a rule, clean the teeth effectually unless they contain some ingredient which acts upon the enamel itself; and those preparations which are eulogized as making the teeth white or preventing the deposit of tartar, should be avoided. Charcoal was at one time a very popular form of dentifrice, and is even now largely used, but from the amount of silica it contains it will rapidly wear away teeth that are not of exceptional hardness; and, moreover, the gums in some instances become tatooed in a curious manner from the absorption of minute particles. Pumice powder, again, is too gritty; and camphorated chalk is said to make the gums spongy. Precipitated chalk forms the best basis for a tooth powder, to the base of which may be added pulv. saponis and ol. eucalypt., a drachm of each; and, if there is no objection to the taste, half a drachm of carbolic acid.—*Lancet.*

Lycopus Virginicus in the Treatment of Venomous Bites and Stings.

Dr. J. R. Briggs, of Fort Worth, Texas (*Trans. of the Texas State Med. Assoc.*, 1886), calls attention to the efficiency of *Lycopus virginicus*, commonly called bugle weed (the charm weed of the Indians), in the treatment of the effects of the bites and stings of venomous reptiles and insects. "Any one," he says, "who has attended the fairs and other gatherings held throughout Georgia, Tennessee, and Kentucky during the egress of the Indians from that country doubtless remembers that on such occasions there were many Indians who would, with impunity, allow the poisonous rattlesnake to bite them. It was observed that, in order to counter-

act the effect of this poisonous reptile, they masticated large quantities of the bugle weed and swallowed the juice. That the bugle weed was the identical weed used at that time, I have absolute proof." He then gives a brief account of the case of a man who was suffering severely from the effects of the sting of a large centipede. Ordinary stimulants, such as whisky and ammonia, having produced no perceptible results, Dr. Briggs gave a decoction of bugle weed (made with an ounce of the plant to a pint of water, a small quantity of alcohol being added to preserve it), in tablespoonful doses every hour, and applied it on linen cloths to the trail of the insect on the patient's abdomen, extending from the crest of the ilium to the umbilicus, an inch wide, of an erysipelatous redness at first, afterwards black, roughened and elevated. The man became comfortable in four hours, and was able to attend to his business at the end of three days.—*N. Y. Medical Journal.*

Treatment of Anal Fissure.

Dr. Crequy proposes to treat this affection by introducing within the fissure a fragment of lint soaked in a solution of chloral, 1 to 50. This application is made after the morning stool, and is expelled on the following day, when the bowels move. Its action as a stimulant to granulations and as a local antiseptic has been most happy.—*Les Nouveaux Remèdes.—Ther. Gazette.*

Lister's Latest Antiseptic Dressing.

Lister's latest antiseptic dressing is known as salalembroth. He uses it exclusively in his wards, with fine results. It is a double mercurial salt, made by the sublimation of a mixture of perchloride of mercury and chloride of ammonium. It is very soluble, and has not been used in medicine since the time of the alchemists. All dressings—gauze, cotton, wool, bandages, lint, bedding, patient's underclothing, etc. — are soaked in a 1 to 100 solution, and dried. He colors the dressings with aniline blue, 1 to 10,000, so that when an alkaline discharge comes in contact with the dressing, the blue is removed and turns reddish, enabling him to see where the discharge has been and its quantity, however small or large, moist or dried. *Med. and Surg. Reporter.*

[The coloring is ingenious and ought to give very satisfactory results.]

A. H. P. L.

Enlargement of the Limb from Lymphatic Obstruction.

Before the New York Surgical Society, Dr. Weir showed a photograph of a young girl whose right thigh, and afterward the leg, had become enlarged so that the difference in the circumference of the two limbs was six inches in the thigh and two inches and a half in the leg. The skin is now slightly irregular, and the upper part of the thigh was studded with little prominences which gave issue to lymph freely on being opened. Nothing abnormal was to be felt in the abdomen. He had first seen the patient in 1883, when she was twelve years old; the enlargement had then existed for a year. He ordered an elastic bandage, and it was used for over a year, but without benefit.—*Ibid.*

Malignant Disease of the Spine: A Contribution to the Study of Cruveilhier's "Paraplegie Douloureuse."

Dr. R. W. Amidon (*N. Y. Medical Journal*):

We may therefore conclude that malignant vertebral disease is an ailment of middle adult life, more common in men than in women; that, while often following a malignant tumor of the breast,

or occurring in a person with an hereditary taint, it frequently seems of spontaneous origin, due to traumatism or strain; that it runs a chronic course measured by months; that its earliest and chief symptom is pain, generally dull and aching, in the spine, sharp, paroxysmal in the anterior regions of the trunk and in the extremities; that these pains are apt to be bilateral, and in the area of distribution of certain nerves or groups of nerves (neural pains); that they are aggravated by movement, and are generally worse at night; that complete motor or sensory paralysis, with disturbance of the functions of the bladder and rectum, indicates an encroachment upon the caliber of the spinal canal and consequent compression of the cord; that spinal deformity is often present, but never marked or very angular; that spinal tenderness is often present, sometimes acute, more often elicited by firm pressure only; that emaciation is generally marked, and cachexia probably more often present than described; that other symptoms depend on the implication of other organs by the disease, the œdema being due to obstruction of lymphatics or veins by the pressure of enlarged glands or tumors, the icterus and pulmonary signs being due to implication of the liver and lungs respectively; that the growth is rather more apt to be cancer than sarcoma; that the part most often attacked is the upper lumbar and lower dorsal spine; that similar disease of some other organ is the rule, the liver being most frequently the one involved; that the immediate cause of death is generally exhaustion.

Malignant disease of the spine is most apt to be confounded with acute spinal caries. To aid in the differential diagnosis, the following distinguishing features are appended:

	Caries.	*Malignant disease.*
Age	A disease of youth.	A disease of adults.
Antecedents	Tubercular.	Malignant.
Local tenderness and pain	Rare.	Common.
Neural pains	Later.	Earlier.
Deformity	More frequent and angular.	Not always present, and seldom angular.
Anæmia	A late symptom.	An early symptom.
Emaciation	A late symptom.	An early symptom.
Cachexia	If present, a very late symptom.	An early and constant symptom.
Œdema	Rare; if present, anæmic or renal.	Frequent, and from obstruction.
Enlarged glands	Rare, and, if present, general.	Common and localized.
Abscesses	Present.	Absent.
Temperature	Hectic.	Seldom elevated.
Location of disease	In a large proportion dorsal.	In a large proportion lumbar.
Other organs involved	If any, general tuberculosis, with predilection for the nervous system or the lungs.	All organs most often the liver.

True paraplegia, when it occurs, of course due to compression myelitis, and the same in both.

From an ordinary lumbago the pains of malignant disease ought to be distinguished by chronicity and rebelliousness to treatment. A severe lumbago, lasting several weeks, defying treatment, and lacking renal characteristics should excite suspicion of organic spinal disease.

From ordinary sciatica the pains differ by their chronicity and rebelliousness to treatment, and the fact that they are generally bilateral and often accompanied by pains in the distribution of the crural, lumbar, or dorsal nerves; a double sciatica or continuous bilateral pains should always put one on his guard. Moreover, general weakness of the legs rarely occurs with sciatica. In spinal irritation, spinal tenderness is more apt

to be general and exquisite, while the pains of that disease are fugitive, non-neural, and shifting. The history of the patient ought to have much weight in this case. Spinal irritation in adult males is rare. The protean manifestations of hysteria should not mislead a careful clinician in the face of the unmistakable signs of organic disease generally present. Spinal meningitis and pachymeningitis are comparatively rare ailments, and are generally characterized by *non*-neural pains and various spasmodic disturbances peculiar to themselves. Inter-spinal growths cause symptoms very closely resembling those of the late stage of vertebral disease, but the early appearance and rapid progression of paraplegic symptoms, and the absence of a previous protracted stage of neural pains without paraplegia, are suggestive factors in the diagnosis.

The history of the case, aside from the absence of ataxia, diminished reflexes, anæsthesias, retarded sensations, and periods of complete freedom from pain, should render a confusion of vertebral disease with posterior spinal sclerosis well nigh impossible.

Inflammatory affections of the cord, *per se*, forming the various types of myelitis, should be easily recognized by their almost universal freedom from acute pain, and by the early supervention of real motor and sensory paralyses and the frequency of vesical and rectal disturbances.

VENEREAL DISEASES.

The Duration of Syphilogenic Influence in Relation to Marriage.

Dr. P. Albert Morrow, in a paper on this subject, said in conclusion :

1. The facts of every-day observation show that there is nothing constant in contagion, nothing certain in heredity. Many men marry with a syphilis in full activity of secondary manifestation, and never infect their wives or transmit the disease to their offspring. These negative observations are, however, entirely valueless as a basis for estimating positive results.

2. The modern division of syphilis into secondary and tertiary periods, based upon anatomical forms and processes, does not furnish a safe criterion for determining the contagious or non-contagious character of the lesions.

3. The chronological completion of the secondary stage does not always mark the definite disappearance of the virulent principle ; clinical experience shows that late lesions are exceptionally, but none the less certainly, the source of contagion.

4. While in the immense majority of cases the contagious activity of syphilis and its susceptibility of hereditary transmission cease after the third or fourth year, yet well authenticated observations prove in the most positive manner that these qualities sometimes continue in force much longer, and may be manifest in the fifth and sixth year of the disease, and even later.

5. The aptitude of syphilitic parents to procreate diseased children may persist after the cessation of all specific manifestations ; the contagious stage of syphilis is not, therefore, the exact measure of the duration of the hereditary influence.

6. The precise date in the evolution of the diathesis when the syphilitic organism undergoes that radical transformation which marks the limit of its contagious or transmissive power, does not admit of mathematical expression.

7. It is probable that this limit varies in different cases, and that many circumstances contribute to advance or defer it.

8. The type of the syphilis, the constitutional peculiarities of the patient,

the character of the treatment, the presence or absence of certain conditions which are recognized as factors of gravity in syphilis, all exert a modifying influence.

9. All these elements should be taken into consideration in deciding upon the admissibility of a syphilitic man to marriage; each case should be studied upon its individual merits.

10. The direct paternal transmission of syphilis, without preliminary infection of the mother, may be classed among the most conclusively established facts of medical science.

11. It is, therefore, a dangerous doctrine to teach that the sole risks a syphilitic man may introduce into marriage, consist in the contagious accidents he may bear upon his person.

12. The arbitrary designation of a limit of three, or at most four years, as perfectly safe for a syphilitic man to marry, with or without treatment and irrespective of the actual existence of specific lesions, is unwarranted by science or the teachings of experience.

The conditions of admissibility to marriage formulated by Fournier are much broader, more scientific, more safe. These demand a mild or medium type of the disease, an advanced age of the diathesis, three or four years as the minimum, and a prolonged immunity, eighteen months at least, from specific accident; if these guarantees of safety are further fortified by sufficient specific treatment, a reluctant consent is given, marriage is tolerated rather than advised.

Dr. F. N. Otis, to whose paper Dr. Morrow had referred, replied at length, and said that he was not alone in claiming that there was a limit to the duration of syphilitic contagion or its hereditary power; nearly or quite all writers admit it; it was only a question of time. The majority indeed admitted that few cases of contagion or hereditary transmission took place after the fourth year, or even the third year. That was all he claimed. He did not think the inference could be drawn from his paper that he advocated marriage in all cases after the third year, although he had not known any evil results after that length of time had expired. Reported cases of transmission or inoculation of syphilis after the fifth year were very few, and were unreliable, because other sources of contagion had not been excluded. He claimed that the late lesions of syphilis, or so-called third stage, were sequelæ of syphilis, as nephritis might be a sequela of scarlet fever after the disease had ceased to be contagious.

The Infrequency of Secondary Syphilitic Contagion.

Dr. Arthur, of the United States Navy, has made a valuable study of the contagiousness of syphilis by means of its secondary lesions (*Med. Rec.*), based upon the replies of one hundred and eighty-four army and navy surgeons to a circular sent out by him. In a period of ten years, during which some thirty-three thousand men had been under observation, only forty-one cases of secondary infection had been observed. In thirty-eight of these cases oral mucous patches were the supposed contagious lesion, and in them the contagion was by direct inoculation by tattooing in twenty-six cases, by vaccination in one and by biting in two; twenty-nine in all. These are regarded by Dr. Arthur as of no account as instances of contagion, as the possibility of inoculation admits of no question. Of the remaining twelve cases reported as instances of contagion from secondary lesions, five were supposed to have been acquired from kissing; but here there is

a possibility of mediate contagion by means of the finger coming in contact with a vaginal chancre or by the direct contact of the lips with a vulvar chancre, an open wound existing in either case upon the lips of the man, or the woman herself may have had a labial chancre. One case was acquired by a surgeon in a vaginal examination, where there might have been a chancre. In two cases the observations were imperfect. In the four remaining cases, mediate contagion took place in one by means of the mouth piece of a cornet, in two by means of a pipe, and in one from drinking from a water faucet. Still, when it is considered that syphilis is very common among soldiers and sailors, and that they are in the habit of using their pipes and drinking vessels in common, the number of cases of secondary infection is strikingly small. From this study Dr. Arthur concludes that the danger of contagion from the secondary lesions of syphilis is very much overrated, but does not deny its possibility.—*N. Y. Med. Jour.*

Unique Penis Syringe.

Dr. D. W. Boone writes to the *Med. and Surg. Reporter*, as follows:

I send you a description of the following little device, which I have dubbed "Unique Penis Syringe," to be used in lieu of the common penis syringe. It consists of a glass tube or barrel three and a half or four inches in length, one-half an inch in diameter, conical at one end to fit the meatus urinarius, and to the end is attached a hollow rubber ball an inch or more in diameter. By compression and expansion of the ball, fluid can be drawn up and forced into the urethra and returned to the syringe, thus perfectly washing the urethra, the desideratum in urethral injections.

A word as to directions: After the syringe is partly filled, the conical end is snugly fitted to the meatus, and by raising and compressing the ball, the fluid is forced into the urethra; then lower the ball and let it expand, and the fluid is again returned to the syringe. By this maneuvre the injection can be changed and a complete clensing of the urethra effected. With the barrel of a common glass syringe and a small rubber ball, I made a very good instrument.

Conditions which Aggravate Syphilis.

Forinier (*Quarterly Compend. Med. Science*) maintains that certain physical conditions in the person infected have more to do with the gravity of syphilis than the quality of the syphilitic virus. These conditions he discusses as follows:

1. Alcoholism. A powerful factor in increasing the virulence of this affection, favoring the spreading and increasing the intensity of the cutaneous lesions; producing severe symptoms, tertiary in character, early in the secondary stage; creating special types of eruption, malignant, and involving large areas of the skin surface, causing more frequent outbreaks of the syphilides, depressing the system, and finally predisposing to early nervous manifestations and causing deposits in the brain and spinal marrow.

2. Age. Syphilis is always severe at the two extremes of life. In the infant the disease, whether inherited, congenital or acquired, is very frequently fatal, in striking contrast with its benignity in the child two, five or six years of age. In the adult it is usually mild. After fifty or fifty-five years the disease begins to be severe, and in old age it is extremely virulent.

3. Scrofula and tuberculosis act on syphilis and give rise to special symptoms, and at the same time syphilis exerts an unfavorable influence on those diseases. In those cases the syphilides

have a moist, suppurating and fistulous character; ocular, osseous and articular lesions are frequently present; and the larynx, pharynx and nose are early and deeply involved. In scrofulous subjects a particular mixed kind of inflammation of the glands is noticed and in patients with tuberculous tendency pulmonary lesions are very often hastened.

4. Malaria also predisposes to grave forms of syphilis as seen in those affected with malarial toxæmia.

5. All agents which depress the vital economy can serve as factors of virulence in syphilis, such as extreme poverty bad hygiene, insufficient alimentation, prolonged lactation, fatigue, mental worry, etc.—*American Lancet.*

Congential Stricture of the Urethra in an Infant.

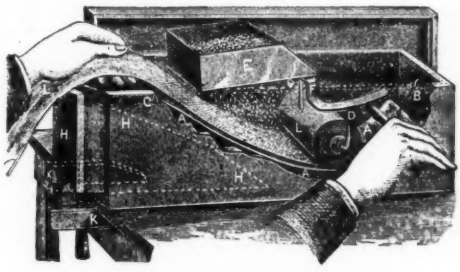
DR. MACAN submitted a case of congenital stricture of the orifice of the urethra, hypertrophy of the bladder and cystic degeneration of the kidneys. The specimen was the first of the kind he had met with, and was taken from a full grown child in the Rotunda Hospital about a fortnight before. The child was suffering from imperforate anus, and soon died. On examining the abdomen over the pubes, after death, a movable tumor was detected reaching as far as the umbilicus. From the gristly feeling of it, he first thought it was malignant disease of the bladder. The penis was very much distorted in shape, and œdematous. On opening the tumor, it was found to be the bladder, with thick hypertrophied walls. Fœtal urine, clear and limpid in character, flowed out, and after the gush, the bladder seemed to fill again, and another gush took place. He searched for some diverticulum in the bladder that might be filled with urine, but found none; but, on cutting down more into the bladder, he found that the fresh flows of urine came through the ureters. It was then apparent that there must be a collection of urine in the kidneys. There was great contraction of the urethral orifice, and great dilatation of the urethra. The right kidney was blown out into a cyst, and contained a considerable quantity of urine. The left kidney was also disorganized. The intestine ended in a blind sac at the lower portion of the bladder. He thought the primary source of disease was the occlusion of the orifice of the urethra. The accumulation of the liquor amnii during the later stages of pregnancy was a proof that that fluid was, in fact, the secretion from the kidneys of the fœtus. The child in question presented another curious anomaly. On one side of the spinal column there was a depression of the skin, with a cicatrix on the outside, which was proved to be caused by a spina bifida. There was also a deformity in one of the legs. Urinary fistula at the umbilicus was not uncommonly met with without any other deformity; and imperforate anus also occurred independently of the other things seen in the present specimen. The most important point connected with the specimen in a surgical aspect was that of the limb deformity being associated with an indication of damage to the spinal cord. It would be interesting if an examination of the specimen could be made in order to ascertain the extent of the nervous supply to the muscles of the deformed limb, for at the present day the exact nature of the lesions known as "club-foot," and congenital deformity of the hip, were vexed questions. In the present specimen there was club-foot with a distinct lesion, which might involve the nerves that passed into the limb—*Med. and Surg. Reporter.*

FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

A New Apparatus for Preparing Dry Gypsum Bandages.

DR. H. AUGUSTUS WILSON read the following paper at a meeting of the Philadelphia County Medical Society:

Rolling the dry plaster-of-Paris bandages by hand, the method usually in use, is unsatisfactory, and under the most favorable circumstances a dirty process. It was to avoid the inconveniences and the irregularities of that method that I devised this apparatus. It consists of an ordinary box-bandage roller, with the addition of the following: A movable bottom, A A A, held in contact with the outermost layer of



the bandage, as it is rolled, by a rubber band B, and at the other end by a hinge joint C. Upon this movable bottom, and just in front of the crank, is a floodgate or distributor, not shown in the illustration, which equalizes the distribution of the plaster and presses it into the bandage from above, while the movable bottom prevents the gypsum from passing through the meshes. Proper tension is applied by two rubber bands.

A hopper, E, is provided with an arm, F, bent in such a manner as to be raised by the crank at each half-turn, and upon being released it falls, throwing down a quantity of the powder upon the bandage in front of the distributor. A compartment, H H H, occupying the otherwise waste space under the movable bottom, is utilized as a receptacle in which may be kept the gypsum when the apparatus is not in use. A scoop accompanies the apparatus with which to take gypsum from the compartment and fill the hopper. The entire affair can be securely held to a table by a clamp K. Elastic bands are used as springs, because they are inexpensive and can be very readily replaced when worn out. The method of using is, first to pass the end of the bandage to be rolled over the movable bottom, under the distributor, and attach to the crank. The hopper is now to be placed in position, and, by means of the scoop, filled with a sufficient quantity of gypsum. While the crank is turned with the right hand, the left guides the bandage, which may be watched, over the hopper, as it is being rolled. The bent arm of the hopper is so arranged that the fall of the hopper may be sudden or gradual, and upon this depends the quantity of powder discharged. When the crank is turned very slowly the hopper is raised slowly and descends with the motion of the crank, and scarcely any gypsum is precipitated, and, of course, the converse follows. This being clearly understood, a very slight experience will enable any one to control the action of the hopper with the crank. When a bandage is finished, the crank is withdrawn sufficiently to disengage it from the bent arm of the hopper, and while the left hand holds the bandage a quick reverse turn of the crank enables it to be easily withdrawn. The gypsum remaining on the movable bottom is now discharged into the compartment by placing the hopper to one side, detaching the spring, B, and raising that end. The apparatus is applicable to the rolling of the ordinary surgical bandage by detaching the rubber spring, B, thus allowing the movable bottom to drop

out of the way. It prepares the dry gypsum bandages evenly and quickly. It is very simple in its construction and action. It cannot get out of order, except by the breaking of the rubber bands. It is inexpensive. Possessing these advantages, I hope it will be of service and facilitate the preparation of the dry gypsum bandages in the hands of other physicians, as it undoubtedly has in mine.—*N. Y. Medical Journal.*

Fracture of the Fifth Cervical Vertebra, with Recovery.

Dr. A. G. Gerster presented a patient who had recovered from this injury, and related the following history: E. H., aged thirteen, while bathing at the sea shore on August 6, 1886, dived into shallow water and struck his head so violently against the bottom that he was stunned. He was taken from the water by his playmates and was carried to the neighboring hotel. The local physician found that there was paralysis of the left upper and lower extremities, and of the bladder and rectum. There was also paralysis of the right upper extremity (with the exception of the shoulder muscles) with paresis of the corresponding leg. I saw the boy in consultation on the 8th of August, and found on examination that the spinous process of the fifth cervical vertebra was depressed and gave marked crepitation on stretching the patient's neck and then letting go of it; the spinous process of the fourth was abnormally prominent. The head could not be held up without support, and when released it fell over to one side if the boy was supported in a sitting posture. Not knowing that his neck was broken, the family had him sit up in bed, when he complained of a severe pain in his head. Weight extension was applied, and the bladder was emptied by catheter. On the 10th of August he was able to pass his water naturally. By the 25th there was a marked improvement in the right side. The patient was then brought to the city and was placed under Dr. Lange's care at the German Hospital. In October he began to walk on crutches, and he had continued to improve ever since. His gait was still ataxic, while his left arm exhibited evidences of ulnar paralysis, especially the "main en griffe"; the extension of the hand on the arm was incomplete, and as soon as it was released it at once recovered its former position. The muscles of the arm and forearm were atrophied and their condition had been but slightly improved by massage and galvanism. No abnormity of outline was to be detected in the neck, the fracture being firmly consolidated, while the irregularities observed in the projection of the spinous processes had been smoothed down by the callus. A symptom frequently described by authors—*i. e.*, priapism—had not been present.

Extension had been obtained by means of Glisson's apparatus, and also by elevating the head of the bed. The patient had experienced relief within thirty-six hours after extension was applied.

There was a prominence in the pharynx which was quite distinct. The patient had probably recovered because there was no interference with respiration.

There is no paralysis of sensation.

There was no displacement at present.

[A similar case to the one above narrated occurred at Coney Island a couple of summers ago, and the man was permitted to die because none of the doctors present had the knowledge or the "nerve" to attempt permanent

extension. Dr. L. C. Gray's case of bilateral dislocation of the neck and reduction reported in the Annals of the Anatomical Surgical Soc. of Brooklyn, for 1881, vol. II, was the first of its kind on record. Dr. Daniel Ayers of Brooklyn, had the honor many years ago of reporting the first case of recovery from unilateral cervical dislocation. Dr. B. F. Westbrook, another Brooklynite, successfully treated a cervical dislocation or fracture at Berkely Heights, N. J., several years ago. These kind of cases should all be promptly reported until they become commonplace, for in this way only will the general practitioner get sufficient confidence to make the simple effort necessary to save life from an injury when it is generally but unnecessarily supposed that death is inevitable].

A. H. P. L.

Treatment of Hemorrhage from the Tongue.

At a meeting of the Medical Society of London, Mr. LOCKWOOD (*Lancet*), read a paper on a "Mode of Restraining Hemorrhage during Operations upon the Tongue." After speaking of the serious nature of that accident, the various plans which had been devised to prevent it were mentioned. None of these seemed to be quite free from objection, although all were more or less efficacious. After discussing the anatomy of the lingual artery, it was concluded that, at the place where the vessel lay upon the side of the pharynx near the greater cornu of the hyoid bone, the depth of tissues was so small that there could be no difficulty in compressing the vessel. The great constancy of the course of the vessel lent itself to this proposal. Forceps were then described which had been devised after a great many experiments upon the dead body. These instruments were quite efficient in preventing the passage of thin injection through the lingual artery. They were so arranged that one blade passed by the side of the tongue into the pharynx, while the other was bent to fit the contour of the lower jaw, and met the other near the tip of the greater cornu of the hyoid bone. Dissections had been made after the forceps had been adjusted, which showed that the artery was tightly grasped and impermeable. A case was then described in which Mr. Lockwood had removed half the tongue while the forceps were in position. The tongue was split down the median septum and then removed with scissors. The lingual artery did not pulsate or bleed, and the operation was rapid and bloodless. Other cases were then described in which Mr. Willett had used the forceps; and, in conclusion, it was thought that there was a sufficient amount of evidence to show that the lingual artery might be easily and safely compressed.—*Therapeutic Gazette.*

A Case of Aneurism of the Thoracic Aorta Treated by Galvano-Puncture.

The aneurism was of the first part of the arch of the aorta. The symptoms for a long time were those of insufficiency of the aortic valves, with hypertrophy of the left ventricle. Horrible painful attacks of angina also occurred from time to time, and for these morphia was given hypodermically. After some months the patient was again seen, and a tumor was noticed over the second left costal cartilage, and dysphagia had appeared. The patient being urgent that some operation should be performed which might possibly give him relief, Obelar determined to try galvano puncture. A Spamer battery of 20 cells was used. The needles were inserted about one inch apart. The current was grad-

ually increased from 2 to 10 cells, and then gradually lowered to 2 again. The séance lasted 10 minutes. In three other séances the number of cells was increased to 20. The patient complained of burning pains in the sac and in the left chest for some hours after each operation. The tumor diminished much in volume, became harder and pulsated less; the dysphagia also was relieved and the general condition improved; the pains, however, continued. After the lapse of a month the tumor again began to enlarge and the pulsations became more evident.

[Certainly an apparently good device. It seems though, that the galvanisms should be more numerous and cover a longer time.] A. H. P. L.

Case of Total Extirpation of Scapula with Final Recovery, and Good Utility of Arm.

Dr. Schulz, of Sonnenberg, in Neumark, reports (*Deutsch. Zeitschr. f. Chir.*) the case of a farm hand, æt. 16, who was admitted to the Johanniter Hospital in Sonnenburg, for pain, redness, and swelling of the shoulder-joint. He had gone to sleep July, 1884, and, on awakening, could not use his arm. Treatment with tr. iodine. After one week, incision liberating pus. Fistulæ remained below the spine of scapula and in the internal aspect of the upper third of arm. Movement was greatly impaired; pressure caused pain: temperature, 40° C.; pulse feeble; occasional fainting spells.

Treatment.—Tonic, eggs, wine, quinine, phosphates; repeated incision and drainage; arm maintained in fixed position.

Subsequently improvement set in. But incision of an abscess above the spine of the scapula became necessary; the focus was scraped out with the sharp spoon. Roughened bone could be felt over the whole of the scapula with probes, and joint-affection was established.

September 1. Arsenic given, with general improvement; subsidence of suppuration; increase of appetite. Soon, however, another abscess appeared near the acromion demanding incision.

December 12. Extirpation of scapula; incision from spine to angle; subscapular artery tied; head of humerus exsected, as well as acromial end of clavicle, both being carious. Sublimate dressings; reactionary temperature 38.0°; subsequent reconvalescence.

February 10. Patient up and about; can move fingers and forearm, and rotate and swing upper arm, but cannot abduct it.

May 6. Dismissed with a support; can write; was seen after five months again, still improving.—*Medical and Surgical Reporter.*

The Formation of a New Nasal Skeleton from the Frontal Bone.

Prof. König (*Arch. f. klin. Chir.*): In cases where the bony framework of the nose has been destroyed, all attempts heretofore at reconstructing a proper profile have failed.

In view of four fairly successful cases, K. here presents a method which he has devised. First, the soft parts (tip and alæ) are made mobile by a transverse cut through the most sunken (saddle) portion of the nose. If this lower part is then drawn down into its normal position, a broad gaping defect appears. This is first bridged over by cutting a $\frac{3}{4}$ to $1\frac{1}{2}$ ctm. wide oblong flap from the forehead perpendicularly upwards from the bridge of the nose. This flap includes skin, periosteum and cortical layer of frontal bone—the latter being cut around by a chisel. The whole is then loosened by following

down through the diploë with a chisel the exact width of the flap; at its lower end, just at the beginning of the nose, it is bent straight over downwards in front. This brings the skin side of the flap to face the interior of the nose and leaves the bone exposed. Of course the size of this flap has been so calculated that it just covers the above mentioned defect. At its free end it is so sewed to the apex that the (external) cutaneous border of the latter remains free. To this free edge of skin as well as around the defect, he now sews a cover flap taken laterally from the forehead.

Hence the bone-periost-skin flap constitutes the inner lining of the nose. The bony profile of the nose is thus given an ample prominence. Some little corrections may still be necessary about the root of the nose.

His 4 cases included 2 from syphilis, 1 from injury, and one in a boy, æt. 15, from necrosis. The good results have proved lasting—3½ years, 2½ years, and in two 1 year, have passed since the operation. All his flaps, even when a little less than 1 ctm. wide, have proven viable.

It is better not to operate when there is ozena from necrosis or ulceration.

K. states that he is trying this method in cases of total loss of the nose.—*Annals of Surgery.*

How to Cut a Bottle.

A correspondent of the *Chemist and Druggist*, in describing how to make a percolator, mentions the following method of cutting a bottle: I was first shown how to do it by an ingenious mechanic, and have since seen the same published in Spons' "Workshop Recepts." Put the bottle on a level foundation and fill up with oil (I use linseed oil, being able to use it in paint making afterwards) as far as you wish the line of separation to be. Next get a rod of iron as large as possible, but small enough to get into the bottle. Make the iron almost white hot and dip into the oil. In a very short time a crack will be heard, when the iron can be taken out, and the bottle will be found as neatly cut as if with a diamond. Should the bottle be very thick, and the crack not heard in a minute or so, a dash of cold water outside will settle the business.

On the Mortality of Operated Hare Lip and Cleft Palate.

Dr. A. Hoffa (*Arch. f. Klin. Chir.*): This article adds 80 cases from operators in Würsburg and Freiburg—1870 to 1885—to previous statistics. Of the whole 80, 24 (30%) have since died. Of 64 under one year old, 19 (30%) died before the end of that year. The collective statistics for the first year give 373 cases, with 129 (35%) deaths. Hoffa endeavors to determine how far the fatal results were due to the operation, and how far to the malformation itself. The normal death rate the first year, from an average of various countries, he gives as 25%, leaving 10% due to one or both of the causes mentioned. To determine between these he divides the respective cases of Fritzschl, Gotthelf, Abel and himself into three classes, according as the chief deformity was: 1, hare lip; 2, complete fissure; 3, bi-lateral fissure:

Group 1. 114 cases, with 27 deaths (23.7%).

Group 2. 111 cases, with 43 deaths (37%).

Group 3. 41 cases, with 24 deaths (59%).

From these figures, showing progressive mortality as the trouble increases, it cannot be doubted that the malforma-

tion itself has a great influence on the mortality. This conclusion is opposed to that of Gotthelf, who blamed the severer operation for the increasing mortality. Those of the 3d class are usually born weak and atrophic, and with great tendency to respiratory and digestive troubles. The respiratory troubles are remedied to a far greater extent by the operation than are the digestive. H. endeavors by other statistics to further establish his view of the prevailing influence of the malformation itself, rather than the operation, on the mortality, but decisive facts are wanting.

By adding up 620 published cases of all ages, he finds the mortality for the first two weeks p. o. to have been 60 (9.6%); from the second week to the end of the third month, in 439 cases, it was 67 (15%). Of 336 cases 55 (16%) died between the third month and the end of the fourth year. Of 39 cases of bi-lateral cleft palate with os prominens operated under one year of age, 25 (63%) died within a couple of years. By comparing two curves, one representing the normal death, the other that of the operated children during the first year, he finds that the second to the sixth month, inclusive, is the most favorable time for operating. Dentition, which then begins, shows a deleterious influence. As an evidence of the advantage of operation early he cites a case where the lip was treated, and at the end of three years the previously existing alveolar and anterior palatal fissure had completely healed out.—*Ibid.*

A Rapid and Easy Method of Excision of the Hip Joint.

Dr. Milton Josiah Roberts (*New York Medical Journal*):

Incision through the Soft Parts.—The direction of the incision which I prefer is that indicated in Fig. 5 by the continuous dark line. It is begun a little in front of the mid-point of an imaginary line drawn between the anterior superior spine of the ilium and the middle of the summit of the great trochanter. Entering the knife at this point, it reaches the head of the bone at the upper

Fig. 1.

and anterior edge of the acetabulum. From this point a curvilinear incision backward and downward is made and the knife is passed over the summit of the great trochanter at the junction of the middle with the posterior third of its antero-posterior diameter. Having

reached the summit of the great trochanter, the incision is extended in a straight line down the shaft of the femur to a point on a level with the lower border of the lesser trochanter. All the tissues, including the capsular ligament, are divided down to the bone along the

Fig. 2.

Fig. 3.

line of this incision. Care, however, is taken not to cut through or wound the periosteum in any manner.

The Placing of Protecting Retractors between the Soft Parts and the Bone.—Having made a clean cut down to the bone, the soft parts on either side of the wound between the great and lesser trochanters, or at any level where it is desired to make section of the femur, are severed a little on either side from their connection with the periosteum by means of a sharp scalpel. At no other point along the line of incision are the soft parts severed from their connection with the periosteum. The reason of such severance at the point where it is desired to make section of the femur is in order to facilitate the introduction of protecting retractors between the bone and the soft parts. The retractors employed for this purpose are made to be used in pairs or singly. The blades of those designed to be used in pairs are illustrated in Fig. 2. They are introduced one at a time much after the fashion of the blades of an obstetric forceps, being placed close to the bone between it and the soft parts. When in position, the bone lies directly upon them, as shown by the dotted line in the figure, and the soft parts behind them. As these retractors are made of steel, the soft parts are absolutely protected from all danger of being cut when using the circular or sectional saw of the electro-osteotome.

That form of retractor designed to be used singly is illustrated in Fig. 3. The blade has a much longer curve than the others, and, though somewhat more difficult of introduction on this account, it is, for other reasons, sometimes the preferable form of retractor to use. The curves of these retractors are made to correspond to the various sizes of circular saws.

Section of Bone.—Having placed the retractors in position, an assistant depresses both handles so as to bring the bone into full view. The electro-osteotome (Fig. 4), provided with a circular saw of appropriate size, is now grasped

Fig. 5.

by the hand of the surgeon, the circuit closed, and the rapidly revolving saw blade brought down upon the bone at right angles to its shaft. A perfectly

clean and smooth section through the periosteum and bone is made in from two to three seconds, according to the size of the bone. By this means it will be seen that the sections through the periosteum and bone coincide absolutely throughout. If the bone were divided inside the periosteum, as some surgeons recommend, a part of the healthy bone on the distal side of the cut would necessarily be denuded of its periosteum.

Subperiosteal Removal of Upper End of Femur.—The next step in the operation is the subperiosteal removal of the upper end of the femur. To this end, the periosteum is divided upon the bone in the line of the initial incision through the soft parts. The end of the femur which has been cut off being firmly held within the grasp of a bone forceps, the periosteum is reflected from the bone at either side by means of a periosteal elevator. As rapidly as the periosteum is reflected, the fragment of bone is raised out of its periosteal bed by means of the bone forceps. When the digital fossa is reached, the attachment of the rotator muscle is divided with the blade of a scalpel and the operation proceeded with. The rapidity and ease with which the detached end of the femur may in this way be removed is truly surprising. It should be noted also that by this method of removal the attachments of the periosteum are only disturbed at one point—viz., where the transverse section of the bone is made.

Subsequent Steps in the Operation.—The subsequent steps in the operation do not differ materially from those practiced by other operators, except, perhaps, in regard to the introduction of sutures. Having cleaned out the acetabulum, should this be diseased, I am in the habit of introducing a large-sized rubber drainage tube and closing the periosteum and soft parts over it with silver sutures. These sutures should be passed from the surface down through the entire thickness of tissue and through the periosteum near the line of incision. Drawing the needle out at this point, it is passed up through the edge of the periosteum on the other side of the wound through the tissue to the surface, as indicated by the dotted line and arrows in the diagram (Fig. 5).

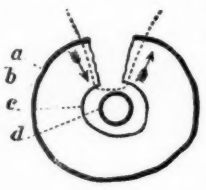


Fig. 4.

Introducing the necessary number of interrupted sutures in this manner, the edges of the wound are drawn together and secured in position. If the operation has been thoroughly performed under strict antiseptic precautions and no diseased tissue remains behind, primary union not infrequently takes place throughout the entire extent of the incision except where the drainage tube projects.

A New Apparatus for Maintaining the Lithotomy Posture.

At a recent meeting of the Philadelphia County Medical Society, Dr. THOS. B. MCBRIDE showed an apparatus which he had designed for supporting the limbs and maintaining the lithotomy posture.

It consists of a piece of hard, elastic wood, preferably ash or hickory, $\frac{3}{8}$ of an inch thick, 1 inch wide, 36 inches long, bent at each end in a semicircle of 6 inches in diameter, or a semicircumference of $10\frac{1}{2}$ inches, thus leaving a shaft of 15 inches between the semicircles, and making the finished length of the instrument 27 inches (6+15+6).

To the shaft, 2 inches from each end, a buckle is immovably fastened by means of leather. A band of webbing,

finished at each extremity with a leather strap, the whole 50 inches long, completes the device. In using the apparatus the thighs are flexed on the abdomen and put into the semicircles, and the band is placed around the neck and fastened to the buckles.

Dr. McBride said: "The advantages are apparent. Its cheapness places it

within the reach of every one. The thoroughness with which it does its work, keeping the patient immovably in the lithotomy position, and maintaining the same relative position of the parts; the fact that it does not interfere with the circulation; the strength, lightness, and remarkable simplicity, will, I think, render it a valuable acquisition to the surgeon and gynæcologist."

VENEREAL DISEASES.

Diagnosis of Chancroid.

In Dr. KINSMAN'S translations of Leloir's lectures on syphilis, published in *Cleveland Medical Gazette*, we find the following:

Diagnosis of chancroid. Omitting the diagnostic signs which are drawn from the fact that chancroid is never located, so to speak, on the head, omiting also the signs drawn from the later evolution of the lesion, from confrontation, I place before you the following tables taken from Fournier's lectures upon syphilis, in which the differential characters of chancroid and chancre are admirably sketched.

Simple Chancre.	*Syphilitic Chancre.*
I.—NUMBER OF LESIONS.	
Almost always multiple, often confluent.	Often single, rarely multiple, never confluent.
II.—APPEARANCE OF ULCER.	
1. A true ulcer sunken, excavated.	1. Lesion habitually flat, often elevated and papulous, rarely ulcerated.
2. Borders perpendicular, abrupt, open.	2. No borders, contour adherent, frequently elevated in a crown.
3. Base unequal, anfractuous.	3. Base smooth, varnished, shining, glistening.
4. Yellowish lively tint.	4. Gray red, flesh color, a dark deep hue.
5. Abundant secretion of true pus.	5. Slight secretion of sero-sanious fluid rather than pus.
III.—BASE.	
Base soft, offering a diffuse inflammatocory renitence.	Base is indurated in various degrees.
IV.—GANGLIA.	
No bubo—if any, it is simple inflammatory.	Bubo constant, indolent, non-inflammatory, most frequently many ganglia are involved.
V.—EXPERIMENTAL CRITERIA.	
Pus inoculable upon patient.	Pus not inoculable upon patient.

In my opinion we may add to these differential signs, that the infecting chancre is not transmissible (to the present at least) to animals, while the chancroid is transmissible, although with difficulty. Besides, I think in some cases the histological examination of the scrapings of the surface of the sore may have a certain utility in diagnosis. If you examine an infecting chancre, a gray, diphtheroid erosion, you will find, as I have shown you, in the product of scrapings, the debris of false membranes, arising from cavitary alteration of the epithelium which comes from the surface of the chancre. In the chancroid, on

the contrary, as there is ulceration, and as always happens when there is ulceration of the surfaces, there is no epithelium.

[We recollect reading but a few months ago, but when is not positively known at present, of some recent innoculations of animals with syphilis, and the additional enunciation of previously successful attempts that had been overlooked or forgotten. These translations are from a French author, whose original writings on this part of the subject were very likely penned a couple of years ago, or more.] A. H. P. L.

Treatment of Gonorrhea by Injections of Iodoformed Oil.

The treatment of gonorrhea is an *odium medicinæ* to every practitioner, and the number of methods of treatment fully attests this fact. Whenever a new treatment seems to succeed, its author immediately rushes into print to announce his discovery, and the credulous reader adopts it only to find another bitter disappointment. M. Paul Thiéry, of the Hôpital du Midi, has announced a method of treatment in *Le Progrès Médical*, but very judiciously promises that he does so with a certain degree of timidity after so many others have been tried, recommended, adopted and rejected. The method, in brief, is as follows: The urethra is first cleansed with luke-warm water, the water being caused to wash the urethra from the bulb forwards. The next stage of the procedure is to inject about eight grammes (3 ii) of a mixture of iodoform rubbed up in oil of sweet almonds. The patient must then hold the meatus closed for about twenty minutes. The author claims that the action is rapid and active. To be certain that the treatment was proper, M. Thiéry injected the patients himself, and in six cases had the following result:

	Attack.	Age.	Injections.	Cured in
1.	1st	15 days.	10	6 days.
2.	2d	15 "	18	13 "
3.	1st	4 "	8	5 "
4.	1st	8 "	24	11 "
5.	1st	8 "	29	22 "
6.	1st	15 "	16	8 "

These are very good results, and the results have been confirmed by a search for the gonococci of Neisser. The injections of iodoform seem to be less dangerous than those of nitrate of silver and corrosive sublimate, and at least as efficacious. As the author very pertinently remarks the failure of success which often attends the treatment of clap is due, not so much to the treatment itself, but to the inability of the patient to properly inject himself. I have had very good success with corrosive sublimate injections, and this may be due to the fact that I have always been very particular in my instructions to patients in regard to the proper manner of injecting.—*St. Louis Medical and Surgical Journal.*

Treatment of Chordee.

Chordee is, perhaps, one of the most painful complications of gonorrhea, and like its remote cause, is often rebellious to treatment. There are many methods of treatment for it, and whilst successful in some cases, they prove signal failures when most needed. Among the late contributions to the treatment of these erections, is that of Anthelme Jamin, whose means are entirely mechanical. The apparatus consists of a belt, to the posterior portion of which are attached two thigh bands, separated from each other about twelve inches and so as to pass exactly in the natal folds. These two straps are continuous in front, with a large, thick band of cloth about six inches wide and eight inches long, terminating in three straps, which are buckled to the belt. In applying the apparatus the penis is lowered

so as to find a resting place between the testicles and press against the perineum. The advantages claimed for this are: 1st. That it regulates the erections and soothes the pain. 2d. It soothes the pain by preventing an erection of the penis and consequent tension of the corpus spongiosum. 3. The number of micturitions frequently diminish, for erections increase the desire and patients urinate to cause the erection to subside. 4th. The author suggests the possibility of relieving other forms of morbid erection by this simple mechanical treatment.

[The mechanical treatment here suggested for the treatment of chordee will give decided relief. We have advised forcibly bending or flexion of the penis by the patient during erection, and it has always worked satisfactorily. We have also recommended the wearing of an ordinary athletes' jock strap with the penis bent down between the testicles, instead of being held up against the pubes and belly. The jock strap costs 35 or 40 cents, and can easily be made; it is also a valuable instrument for persistent priapism.] A. H. P. L.

Priapism of Three Years Duration.

In a remarkable case of this sometimes obstinate affection, reported by Dr. T. Herring Burchard, of New York City, to the New York Clinical Society, at a recent meeting, the following course of treatment, purely empirical, but certainly rational, was recommended; reference being first made to the treatment which had been adopted before the patient came into his hands:

Previous Treatment.—Needless to say, having consulted many men, he had about exhausted the list of therapeutical resources. For over six months he had taken enormous doses of the bromides without any appreciable effect. Camphor, opium, cannabis indica, ergot, chloral, galvanism, hot and cold spinal douches, had been repeatedly employed, but without controlling the disease or mitigating his suffering.

At the time I first saw him he had about determined to abandon further treatment, controlling the severity of his paroxysms, when they occurred, with morphine, and trusting to relief from his intense sufferings in death.

The subsequent treatment was as follows:

1. To preserve his vitality in the best condition possible, and to husband his strength, he was put to bed. For the relief of his dyspepsia he was put upon a diet of peptonized milk with Murdock's food.

2. Believing that there must be impaired circulation through the cord, whether due to an anæmic or congested condition, I shall not pretend to say, spinal spongings of very hot and very cold water, applied alternately down the spine for a period of ten minutes, were employed three times a day. This sponging was used in preference to galvanization, because he had repeatedly received galvanic treatment at the hands of experts abroad without benefit.

3. To relieve any possible congestion that might be existing, applications of the actual cautery were made down the dorsal and lumbar spine on three occasions. The most marked improvement followed these applications.

4. In order to control the circulation of the cord, the fluid extract of ergot was administered in dram doses, at first three times a day, this being increased later on to a dram each three hours. Hypodermics of the hydrochloride of strychnine, commencing at one-sixtieth of a grain and increasing to one-twentieth of a grain, were given each day.

5. To abort the paroxysm, a spinal ice-bag was applied to the spine at the commencement of the paroxysm, and a full dose of morphine with atropine was administered hypodermically. Upon two occasions, when the paroxysm did not yield to the morphine within twenty minutes, chloroform was given by inhalation.—*Coll. and Clin. Record.*

Gonorrhea in the Male.

DR. JAMES H. DUNN, in a clinical lecture published in the *Minn. Med. and Surg. Jour.*, said :

Treatment Stage of Invasion.—During the stage of invasion rest, and especially avoidance of excessive standing, walking and lifting, restricted diet preferably to milk and demulcent drinks, and proscription, until after all inflammatory action, of every kind of alcoholic drinks, condiments and excessive use of tobacco. The copious ingestion of plain or carbonated waters, the administration of alkaline diluents sufficient to render the urine unirritating, includes the most rational as well as the most useful treatment.

During the Height of Inflammation.—During the height of the inflammation, to the above may be added sedatives, such as bromides, camphor, hyosciamus and especially opiates. The continued immersion of the organ in hot water, especially at bedtime. Perfect cleanliness and arrangement to allow the free discharge of the pus from the meatus, which should not be blocked up with cotton or lint. The bowels should be regulated throughout the disease. In exceptionally sthenic cases, with general disturbance purgatives and arterial sedatives, such as aconite and Dovers' powder may be temporarily useful.

During the Stage of Decline.—As the stage of decline approaches, in persons of strong digestive powers, the free use of copaiba and cubebs seems beneficial, but they should be discontinued if not well borne, nor taken longer than a week or two in any case. In feeble constitutions and in subacute cases, internal treatment, if employed, should be limited to diluents and such remedies as assist digestion, and improve the general system, *e. g.* iron and quinine. When the stage of decline is well marked, local treatment by the rational use of stimulating and astringent injections offers the most important field for medical treatment of the affections. They should not be too strong and are preferably used in very mild solutions, frequently and efficiently repeated. Sulphate of zinc, 2 to 5 grains to the ounce, tannic acid, 3 to 10 grains to the ounce, alum, 2 to 5 grains to the ounce, boracic acid, 20 grains to ounce, acid salicylic, 3 to 5 grains to ounce, resorcen, 10 to 15 grains to ounce, and a host of others are more or less reliable when employed skillfully and so as not to cause irritation. They are better used warm and repeated every three or four hours, first urinating and washing out the canal with a syringe full of warm water or of the injection. The surgeon should always administer the first injection and instruct his patient in the proper method of performing the operation efficiently. A syringe holding two or three drams with a smooth conical nozzle preferably of soft rubber, is perhaps the best. Should a judicious use of the above treatment not completely check the discharge in from one to two weeks after the use of the injection is begun, it may generally be assumed that there is some special cause for its continuance which injections are not capable of reaching, and the discharge having become slight and mucopurulent, with periods of exacerbation, a careful examination of the canal with

proper instruments should be undertaken to diagnose more definitely the cause of the chronic gonorrhea or gleet, which will be considered at length at another time; meanwhile all internal medication should be directed rather to improving the general health than to the discharge.

On Injections.—Injections, it must be remembered, though of undoubted utility when properly used at the right time, are subject to great abuse, and many times such complications as epididmitis, cystitis, prostatitis, etc., for which the affection is noted, are the result of their injudicious use. There can be but one rational theory for the use of injections previously to the stage of decline, viz.: the destruction of the diplococci, but in my experience any drug in sufficient strength to actually accomplish that result is capable of doing yet more serious damage to the canal than the diplococci, which, nature if given a fair chance is fully capable of destroying with her army of leucocytes. The old and now obsolete abortive treatment of gonorrhea by strong injections of nitrate of silver doubtless destroyed these organisms, thus converting a specific into a simple urethritis, yet its most ardent advocates finally acknowledged its dangers and abandoned it. Less irritating germicidal agents, viz: 1 to 10,000 or 20,000 bichloride of mercury, though they lessen the activity of the micro-organisms, in my opinion frustrate rather than assist nature in completing a cure. Some have claimed slightly better results than under the plan above outlined, but many allowances must be made for the uncertainty of venereal diseases and venereal patients as well as for the enthusiasm of advocates of a new plan of treatment. Many cases recover with wonderful promptitude under non-medicinal treatment; many patients tired of their physicians report themselves cured and consult other practitioners. New methods are generally reported upon with unwarrantable enthusiasm by their advocates. Cleanliness and the installation of mild solution of nitrate of silver into the eyes of the new born has proven of excellent service in preventing gonorrheal ophthalmia (Crede), but once in active operation according to such an authority as Knapp, the following embraces the results of reason and experience as the best and most perfect management: "So long as the disease is on the increase or at its height, abstinence from all but in different local remedies, methodical and uninterrupted application of cold, and careful cleansing; in the stage of decline, the same treatment in a milder form; in torpid and protracted cases astringents and mild caustics." (*Arch of Ophthal.*) The principles of treatment of the disease in the urethra is the same and only modified by the different anatomy and function of the organ.

On Antiblenorrhagics and Blenostatics.—Having said so much of the use and abuse of injections, it may be proper to refer to their fast allies, cubebs and copaiba, oil sandal, etc. Do we possess antiblenorrhagics and blenostatics? Copaiba and cubebs seem in many cases to check the discharge very markedly, especially when well received by the stomach, but other drugs less irritating to the digestive tract, *e. g.*, kava-kava and triticum repens give nearly as good results, so far as my experience goes, and it is more probable that their good effects are to be accounted for by modifying the urine and directing the attention of practitioner and patient from harmful injections, as the most brilliant results of these drugs have been obtained when they have been

used to the exclusion of local measures. To say the least, it would appear that much faulty reasoning has been called to the defense of these remedies, *e. g.*, Ricord recorded three cases supposed by many to be crucial in deciding the merits of copaiba and cubebs as antiblenorrhagics, cases of individuals with fistulous openings at the peno-scrotal junction through which the urine could be voided or not, at will, by placing the finger over the aperture. A few days' treatment with copaiba or cubebs while passing the urine through the opening, cures the disease posterior to the fistula, while the urethra anterior to it remains inflamed; now, he allows the urine exit at the meatus and cures the other sections of the urethra. To my mind this rather proves that the inflamed canal recovers, as might be expected, more rapidly when frequently washed out with the urine than when less perfectly cleansed.

That these drugs may be used with advantage during certain stages of the disease I believe there is no question, but I greatly doubt whether their action is due to any specific antiblenorrhagic qualities. Very long continued, they are not only useless but sometimes harmful from their interference with the stomach, and it should be remembered that lowered vitality is a frequent cause of catarrhal inflammations becoming persistently chronic.

In my opinion then injections and antiblenorrhagic remedies should play a very subordinate role to hygienic, dietetic and diluent treatment and should be used with discretion and at the proper time.

Treatment of Gonnorrheal Epididimitis.—Gonorrheal epididimitis nearly always tends to rapid recovery in from ten to fourteen days, even under hygienic care and rest. The rapidity of cure and comfort of the patient are, however, markedly facilitated by rest in bed with the scrotal organs thoroughly elevated by means of a handkerchief sling, the three corners of which are secured to a band about the waist or to the undershirt. The application of cold compress wrung out of lead water, smearing the scrotum with a lanolin ointment of belladonna, or in case of severe pain and great tension, the application of a tobacco poultice as the height of the process is reached or passed, and the organ admits of handling without excruciating pain, firm and even strapping of the organ with strips of adhesive plaster—a proceeding long in use, leaves little to be desired as a comfortable and rapid means of hastening the subsiding swelling. As the patient improves and again gets about the remains of the swelling may be treated by application of iodine in solution or ointment and the wearing of a suspending bandage. A mere glance at the colossal list of remedies lauded by various authors for this affection, should be sufficient proof that the disease tends to run in a pretty definite course and ends commonly in resolution even if we did not know that unmedicated cases run about the same course. For the vast majority of cases of post gonorrheal epididimitis and so-called gonorrheal orchitis, which is mainly an epididermitis with exudation into the cavity of the tunica vaginalis, the above treatment leaves little to be desired and the occasional exceptions, such as the formation of abscesses, etc., may be treated on general surgical principles.

DISEASES OF THE SKIN.

Pediculosis Capitis.

In a clinical lecture at the Children's Hospital, Philadelphia, reported in the *Archives of Pediatrics*, Dr. A. V. Meigs

said: This girl, about ten years of age, is brought to us by her mother, with the statement that there is an eruption upon the head which began when the child was four years old. She states that this eruption under treatment has improved several times, but for the last two years it has been much worse. In other respects the child is perfectly healthy. An examination of the head at once reveals the presence of pediculosis. The hair is filled with lice, the pediculus capitis, and it is covered with nits. The secondary result of this source of irritation is eczema. In such conditions I have never been able to cure the disease without cutting off the hair. Although the lice are readily destroyed, the nits cannot be removed without great difficulty, and unless the hair is cut the parasites will be as numerous as ever in a few days. The only way to accomplish a cure is to cut off the hair, and then in a few days the trouble can be relieved. Pediculosis of the head is much more difficult to cure than the same affection of the body. After the hair is cut off, the head should be thoroughly washed with a solution of corrosive sublimate in alcohol, one grain to the ounce. Although in the irritated condition of the scalp this may cause some stinging, yet it will do no harm to make one application or possibly two. The case should then be treated as one of ordinary eczema, by the application possibly of oxide of zinc ointment. I am frequently asked if there is not danger from the use of this preparation of mercury. I have never seen the slightest constitutional effect from the use of corrosive sublimate about the head or body in persons suffering from pediculosis. It is also very efficacious in treatment of pediculosis pubis. Two or three applications usually effect a cure.—*Med. and Surg. Rep.*

[We recently had a case of corporeal pediculosis in which a 1-1000 bichloride of mercury wash was once used, with the effect of putting an end to the pediculi and the itching they caused. The wash was an aqueous solution with the aid of a little ammonium chloride. It seems rational to us, therefore, to suppose that Dr. Meigs' measures are unnecessarily harsh.] A. H. P. L.

Massage in Skin Diseases.

The various mechanical methods employed in the treatment of skin diseases is discussed in a paper, published in the *Vierteljahresschrift fuer Dermatologie und Syphilis*, by Dr. O. ROSENTHAL. He then calls attention to massage, which he claims is destined to attain a position of some importance among local procedures. But very little has been written upon this subject, and of this there is but a small proportion that is worthy of practical application. Rosenthal's method consists in making multiple scarifications crossing each other; then absorbent cotton is applied to stop the bleeding. When the hemorrhage has ceased a fresh piece of cotton is applied and held, and then slow, moderate centripetal rubbing and kneading of the skin is indulged in. In a short time, varying from five to ten minutes, the patient can leave without any dressing being applied. Where a lesion is of considerable extent, it should be divided off into suitable portions to be treated one after the other. The author has employed this method in acne rosacea, in chronic sycosis, in acne, in lupus erythematosus, and in a case of keloid which improved. He does not think it advisable in lupus, on account of the danger of auto-infection and auto-inoculation which follow the method by scarification. Discrimination should be used in the employment of the means of

treatment. It is indicated in circumscribed stases or inflammations of the skin, as it eliminates, or causes absorption of pathological products, and is useful in softening cicatricialor contracted tissue. —*St. Louis Med. and Surg. Jour.*

Old Lepers.

In a paper descriptive of the Leper Hospital in Rio de Janeiro, Dr. J. J. DE AZAQEDO LIMA states (*Monatshefte fuer Praktische Dermatologie*) that the patients affected with the anæsthetic variety of the disease are more long lived than those suffering from the tubercular form. In confirmation of this he cites the case of an African negro (*Crispin*) who died at the age of 105 years, having entered the hospital 65 years previously. Another African, 70 years of age, is at present an inmate, and the disease seems to have arrived at a standstill. A Portuguese woman, who has anæsthetic leprosy, has been in the hospital 32 years. Other cases of still longer duration were observed. The tubercular variety, on the other hand, lasts from 8 to 10 years, unless some intercurrent disease or serious implication of the viscera causes an earlier death. In the mixed forms the duration seems to be governed by the relative preponderance of the one or other form. Very few cases exist in this hospital in which heredity can be invoked as a cause of the disease. There were 230 patients admitted from January, 1872, to August, 1886, and of these 154 were males. There were 55 whites, 39 negroes and 58 mixed.—*Ibid.*

DISEASES OF THE EYE AND EAR.

"Black Eye."

There is nothing to compare with the tincture or a strong infusion of *capsicum annuum* mixed with an equal bulk of mucilage of gum arabic, and with the addition of a few drops of glycerine. This should be painted all over the bruised surface with a camel's hair pencil and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done immediately after the injury is inflicted, this treatment will almost invariably prevent the blackening of the bruised tissue.—*St. Louis Medical and Surgical Journal.*

A New Operation for the Radical Cure of Chronic Purulent Inflammation of the Middle Ear Tract.

DR. SEXTON suggests this surgical procedure for those hopeless cases of otorrhea where the conducting apparatus is crippled, and the remnant of Schrapnell's membrane becoming inverted, helps to form a pouch for the retention of pus and debris. By this operation the passage outward from the tympanic cavity is permanently cleared. The first step in the operation is to separate Schrapnell's membrane from the auditory plate and remove the membrana vibrans from the auditory ring.

If the malleus and incus are *in situ*, divide the tendon of the tensor tympani. The chorda tympani nerve is divided where it enters the pyramid, and at its exit into the canal of Huguier.

The long process of the malleus is to be detached from the glenoid fissure. The freed tissues and bones are now removed with the forceps. Often the incus becomes displaced, and must then be removed with the attic scraper.

Polypi and granulations are to be cut away with the scraper. They sometimes cause troublesome bleeding, and it is better to give them preparatory treatment.

The disturbance to taste from the division of the chorda tympani gradually disappears. The instruments used in the operations were designed by the writer.—*Trans. American Otological So.*

FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

A Case of Complete Transverse Section of the Achilles Tendon by the Sharp Edge of a Spade.—Operations Performed to Restore its Continuity, with Remarks on the Treatment.

DR. AUGUSTUS C. BERNAYS (*The Medical Brief*):

Andreas Judt, twenty-one years of age, florist, whilst engaged in digging up a garden, had the tendon Achilles severed, as seen in the first cut.

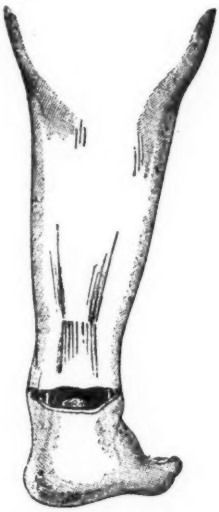


Fig. 1.—The original injury as first seen, the upper end of the tendon drawn up into the sheath.

The cut end of the tendon was quite smooth, but not as smooth as if cut with a razor.

I determined to unite the tendon by direct sutures, using the most complete antiseptic precautions. This operation was the first one in which I used the bichloride of mercury as an antiseptic.

After the anæsthesia was complete and all the muscles relaxed, I expected to be able to easily pull down the upper end of the tendon, but in this I was disappointed. After several futile attempts with suitable instruments, I was compelled to make an incision two inches long, at right angles to the original cut, through the skin and sheath of the tendon, before I could grasp the upper end in such a manner as to securely pull it down.

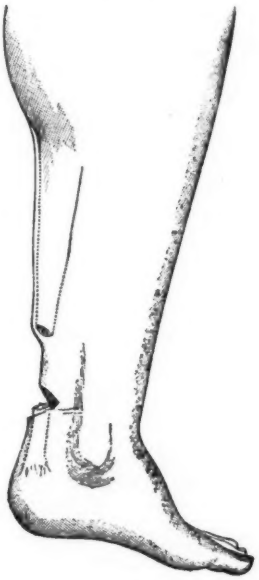


Fig. 2.—Side view. The dotted line shows the extent to which the upper end is drawn up, and also the unnaturally large bulge of the calf due to the contraction of the *Triceps Surœ* muscle.

Fig. 3.—The tendon is drawn down by a suture, after the sheath has been split up.

Even after flexing the knee and extending the foot in such a manner as to completely relax the gastrocnemius muscle, I still found that considerable tension on the ends was required to approximate them. In spite of the anæsthesia and the position of the limb, the ends were fully one inch apart. This distance had to be overcome by the sutures. I tried catgut at first, as the most suitable material, but soon abandoned that in view of the great tension to be overcome, and applied three sutures of No. 5 braided silk, which had been carbolized. I applied three sutures in the manner illustrated in Fig. 4. The one was applied through the middle of

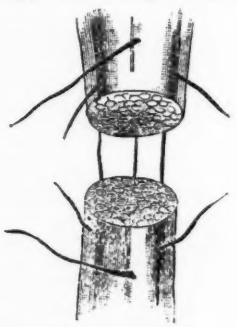


Fig. 4.—The manner of introducing sutures, and the exact distance from the cut edges, nearly natural size.

the tendon, fully one-half inch from the cut edges, and was intended principally to relieve the tension, so that the other two which were applied, one on each side, only a quarter of an inch from the edges, might accurately approximate them and be more likely to secure first intention. This being done, I proceeded to unite the skin over the tendon by numerous fine sutures. The three silk tendon sutures were cut short and buried under the skin flaps. The limb was then put up in a plaster-of-Paris splint in the manner shown in Fig. 5 ; this being the position which most completely shortened the distance between the points of origin and insertion of the gastrocnemius muscle. It is hardly necessary to mention the fact that a thorough irrigation of the wound with a solution of hydrarg. bichlorid. 1:2000 was kept up during the operation. The patient's temperature and pulse remained normal and there was no pain four days after the operation. I removed the plaster which was over the wound, and also the stitches. There was some suppuration, but it was not of a septic character. This suppuration continued until the wound was filled with granulations. Eight days afterward I picked the three tendon sutures out of the granulations, the ends of the tendon being evidently united by young cicatricial tissue. The patient was dismissed on the 14th of October, the whole wound having cicatrized. The function of the limb was nearly perfect. The patient walks well and feels secure on his feet. There is but little impediment to the motions of his foot as compared to the uninjured side. The limb is not quite as strong as before the accident.

On October 29th, while ascending a stairway, the patient slipped, and while attempting to catch himself, the tendon was torn in the same place as it had been previously cut, and there was considerable hemorrhage from the wound. Patient came to the infirmary, and I had to perform the operation of suturing the tendon together for the second time. After freshening the edges I found the resistance against uniting the ends even greater than on the first occasion. After several careful attempts to approximate the edges, during deep narcosis by chloroform, I clearly saw that an operation to unite the severed tendon by direct suture must fail on account of the great tension upon the stitches. It was evident to my mind that no kind of suture could achieve first intention under the circumstances.

I resorted to the following expedient in order to get rid of the traction upon the united ends of the tendon : I introduced a long, narrow-bladed knife, first on the inside of the leg, just in front of the soleus muscle, one inch above the middle of the tibia, and subcutaneously divided the inner half of the soleus and the inner head of the gastrocnemius. I withdrew the knife and reintroduced it on the outside of the leg, under the soleus, and cut it as well as the outer head of the gastrocnemius. This amounted to a complete subcutaneous myotomy of the triceps suræ muscle. After this operation there was a deep groove across the middle of the calf of the leg into which I could bury my hand. In a few minutes the depression was completely filled by extravasated blood, and there was some hemorrhage through the two small cuts made on the sides of the leg. This hemorrhage was easily controlled by pressure.

The second step of the operation was now very easily and satisfactorily accomplished. I united the freshened ends of the tendon by means of four catgut sutures, there being no tension whatever on the severed ends, and no tendency to separate. The force required to hold the Achilles tendon together was very small, there being but a few fibres of the soleus which drew the proximal end of the tendon upwards. I had some misgivings as to the proper blood supply of that part of the triceps suræ muscle which lay between the two cuts. This, however, was soon dispelled by the progress of the healing process in a normal manner. The skin was united over the sutured tendon as before, and the limb was again splinted on the double inclined plane. (Fig. 5.)

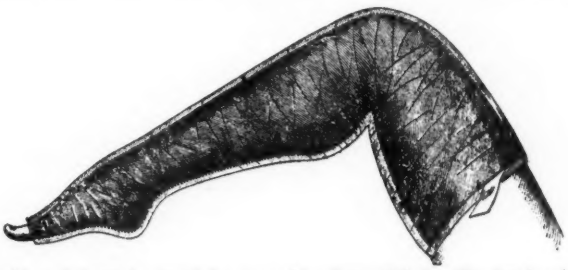


FIG. 5.—The position of the limb, after being encased in plaster-of-Paris. The drawing clearly shows that this position insures the maximum of relaxation of the *Gastrocnemius* muscle.

There was first intention of the lower wound, but considerable suppuration of the severed gastrocnemius muscle. The entire blood clot broke down and there was profuse suppuration for nearly one month.

Fig. 6.—Is an exact copy of the condition one year after the accident. The retraction just above the middle of the leg looks as if it were a scar, which was not the case, there is only a depression.

Patient was dismissed one month later. Function of foot nearly normal;

a deep cicatricial depression marks the place where the gastrocnemius was cut. I saw the patient one year after the last operation, and examination showed perfect restoration of functions of the limb.

The Nasal Trephine and its Advantages.

Dr. H. Holbrook Curtis says in *N. Y. Medical Journal*:

To Dr. Goodwillie's ingenuity are we chiefly indebted for the application of the surgical engine to nasal work, and also for perfecting the so-called revolving knives which are well known to us under his name. The operation of transfixing and removing cartilaginous deviations was suggested by Dr. W. C. Jarvis, who used his snare for the purpose. To whom the introduction of the nasal saw belongs is at present in dispute, though to Dr. Bosworth generally redounds the credit of popularizing its use, and crediting it with its well deserved efficiency.

While I do not wish to depreciate in any way the very valuable instruments at present employed, I beg to add another modification to existing methods.

In a very general use of the nasal saw during the past two years, I have met with so many cases in which its employment was not practicable that I have been experimenting as to a quicker and better means of removing nasal obstructions. I have adopted a combination of the saw and Goodwillie's revolving knives and drills, and I think have produced an instrument which, certainly in my hands works in a most thoroughly satisfactory manner. The idea was suggested to me by Dr. W. W. Walker, a surgeon dentist of this city, who uses a somewhat similar instrument in implanting artificial teeth in the alveolar process. The particular advantages which I maintain for the nasal trephine are: 1. Greater celerity in work than is possible by any other method. 2. That the tissues beyond the deviation are not lacerated. 3. That a perfectly clean bore is made and the operator is not annoyed by hemorrhage. 4. When the position of the posterior face of a deviated septum is invisible, it is possible to make an exploratory channel. 5. That a considerable portion of the nervous shock of a sawing operation is done away with. 6. That bone may be removed with much less motive power and with greater accuracy than by other existing methods.

To better illustrate my method, I submit the instrument, and also wish to call attention to a very convenient electro-motor and battery which I employ to supply motive power.

Fig. 1.

I have taken the electro-motor known as the "Challenge" and caused it to be incased in a nickel plated cylindrical box to prevent entrance of dust and for the purpose of hiding the actual machinery. To the motor are attached the flexible cable and chuck, such as are employed on the surgical engine, in which the trephines are inserted. For greater convenience, I have been employing in my operating room a constant galvanic battery known as the

"Voltapavia," made on the principle of a Leclanché cell, having a porous cup, zinc and carbon elements, and two fluids. Six cells of this battery give about twenty ampères of current with an electro-motive force of twelve volts. For general office work the battery does not require filling oftener than every six weeks, and permits daily use of the motor, thermo-cauteries, and a small lamp. By employing a battery of this description, all plunging of plates is done away with, and also the annoyance of mixing new solutions. When one is constantly using the cautery points and motor this is a matter of great convenience. I show also the Gibson storage cell, which is a superior attachment, where constant use is being made of the current. This cell must be fed from gravity batteries, which may be placed

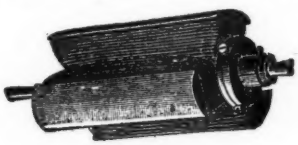


FIG. 2.

in the yard or cellar. The storage battery, so called, will undoubtedly come into general use when the expense of the plant is diminished. The most convenient arrangement for using the motor is to have the machine suspended from the ceiling by the insulated wires from the battery, immediately behind the operating chair, and contact to be made by a button under the foot of the operator. After use, the motor may be swung aside and hung on a hook in the wall. The armature, consisting of three segments, is so placed within the field that, on closing the circuit, there is a constant revolution of the axis established always in one direction. There is no dead centre possible in this motor, which will start immediately and attain a speed of over fifteen hundred revolutions a minute. The motor stops working almost immediately on breaking the circuit.

Before speaking further of the motor and its arrangement, I will cite a case or two to explain the method of operating:

CASE I.—Mr. B., aged forty, suffered from so called post-nasal catarrh for many years. There was found total occlusion of right nostril from a vertical acute deflection of the septal cartilage, involving a slight portion of the vomer in the posterior face. The deflection was so marked that the nose showed a prominence above the ala of the right nostril, causing disfigurement. On March 6th the patient was operated on, two perforations being made one above the other, removing the ridge of the deflection and permitting some entrance of air to the right nostril. Considerable hemorrhage ensued, which was controlled in a few minutes. On March 15th, the relief having been very great from the preliminary operation, the patient returned and allowed three perforations to be made, an operation lasting less than one minute, and giving a free nasal channel. The process of healing caused a slight fenestration and gave a most excellent result.

The special points of interest in this operation were as follows: The patient was extremely nervous and debilitated, and I feared too great a shock from a continuous operation with the saw, as I should have had to encounter a bony plate on the posterior face of the deflection, which often requires some time to excise, and disagreeable hemorrhage is apt to occur. In taking out a cylindrical section at each sitting, a procedure lasting but about four seconds, the horror of an operation is mitigated. I have in two cases been obliged to discontinue a sawing operation by reason of the patient having fainted, not on

account of actual pain, but from the continued noise of the saw and the associations connected with its employment. The operation with the trephine is absolutely painless when cocaine is applied to the mucous membrane, and none of that maceration of the tissues results which takes place when the revolving knives are used; nor is there any danger of sudden deflection from the point of original contact, a thing which frequently occurs with the knives when brought to bear on the bony ridge of a deviation.

CASE II.—Miss L., of Brooklyn, aged twenty-two. Chronic post-nasal catarrh, with Eustachian catarrh, deafness, and very disagreeable tinnitus aurium.

Condition of nares as follows: Nearly complete stenosis on both sides due to sharp horizontal deflection of septum into right nasal cavity, occluding the inferior meatus, and true hypertrophy of left inferior turbinated body, the changed erectile tissue of which anteriorly was not contracted by cocaine nor by application of chromic acid (hence true hypertrophy). The patient was a confirmed mouth-breather. Assisted by Dr. Vincent Bowditch, of Boston, I attached a $\frac{3}{16}$-inch trephine to the electro-motor and took off the anterior prominence of the ridge of the septal deformity the bone extending half an inch where the meatus was pervious. Quickly introducing a plug of absorbent cotton, as there was no great hemorrhage but simply an oozing, I entered the left nostril and removed that portion of the inferior border of the turbinated body which occluded the meatus. From this there was no loss of blood, and the core which remained in the trephine had the macroscopic appearance of cartilage. The patient in ten days' time presented herself with both inferior meatus thoroughly open, and with a comparative freedom from her catarrhal symptoms. At present there is a slight abatement of the tinnitus. The entire time consumed in both procedures was less than thirty seconds.

In case it is desirable to remove the lower border of the turbinated bodies, the trephine is particularly adapted to the work. That true hypertrophy will often resist chromic acid, the monochloracetic and nitric acids, makes a surgical method a necessity, and in cases in which the uneven ridge of the hardened turbinate bodies makes it difficult to use the saw except in consecutive cuts, the trephine will do the work by one application. In but three or four cases have I encountered a true hypertrophy of the turbinated bodies; in these the elastic tissue elements were in great excess, at the expense of the vascular, all erectile power being lost. In my opinion, it would be very much better to employ the expression erectile tumors to designate those tumefactions that we commonly see on the anterior portions of the turbinated bones, which disappear upon application of cocaine, and are readily overcome by one or two applications of chromic acid; for in these the swelling seems to be due to a weakened condition of the walls of the blood vessels, allowing permanent dilatation, and not to any proliferation or hypertrophy. In applying chromic acid for the restitution of the calibre of the meatus, we are simply bandaging the weakened and enlarged erectile structure by producing a cicatricial envelope to prevent undue distension of the glomerous nasi, or erectile plexus. That the turbinated bodies have a normal erectile function was the almost unanimous opinion of this section expressed at the last meeting, but the word hypertrophy used to express an altered condition of this

function without hyperplastic development is, in my opinion, a misnomer.

The employment of the galvano-cautery to reduce erectile tumors is advocated by some specialists. Dr. Schweig, whose battery I have here to-night, is accustomed to destroy the erectile protuberance by plunging a galvano-cautery point deep into the tumefied turbinated bodies, considering that the destruction of a portion of the vascular plexus will produce a more permanent result than the destruction or modification of the external mucous membrane. I have not been able to obtain the results by that method which I expected to theoretically, and have limited the employment of the galvano-cautery points to the destruction of tonsils and the eradication of glandular hypertrophies. The use of the cautery point on the granulations or glandular enlargements studding the post-pharyngeal wall in so called glandular pharyngitis, or clergyman's sore throat, I consider unnecessary, for, from the study of very many cases, I have found that disappearance of all these angry looking red glandular islands studding the posterior wall of the pharynx takes place on relieving the always attendant nasal stenosis.

Intracapsular Fracture of Femoral Neck.

Dr. A. W. Imbrie says substantially in the *American Lancet:*

The occurrence of this fracture so frequently has been attributed to an alleged increase in the earthy constituents in the bones of old people. By analysis it, however, has been shown that in reality the earthy matter is diminished in the necks of the femurs of the aged. The diminution in the obliquity of the neck of the femur with age has also been considered a cause of this accident, but this change in direction has not been present in all cases, and it has been even denied that it takes place with anything like regularity. So that neither of these reasons is sufficient to explain the frequent occurrence of this accident in those of mature years. We have to look for some other cause, and many find it in the change of nutrition, senile atrophy and fatty degeneration, which leads to a thinning of the cortex and increase of the cancelli. In the bones of the case in point, this fatty change is particularly evident, and I do not remember having had to do with a subject in which there was so much fatty infiltration and degeneration of the tissues. Why this fracture should occur more frequently in women than in men may perhaps be accounted for in one or two ways, by causes which may operate in women and not in men.

1. The trochanters of women are always more conspicuous than those of men, by reason of the greater width of their pelves; and this prominence may be increased by that change, which, at least sometimes, takes place with age, in the direction of the neck, from the oblique to nearly horizontal, and thus the trochanter more readily becomes the *point de force* in falls and other accidents.

2. Intra-capsular fracture frequently occurs from a slight cause, so trivial, indeed, as a twist in turning in bed. Now, I believe this twist is due to the binding of the leg by the bed clothing, and is it not reasonable to suppose that the heavy, clinging skirts and petticoats may, in the case of feeble old women, likewise frequently by entangling the leg, lead to a misstep or a fall, with an accompanying twist sufficient to cause fracture? Herein may be found an additional incentive to the adoption by women of the divided skirt as a regulation garment.

The method of treatment of this fracture will vary somewhat with the age

and activity, as well as the physique, of the individual. In one case the long splint, reaching from axilla to foot of affected side, with aperture.

The prognosis, as we have seen, must be guarded, so far as the repair of the injury and effect upon the general health of the patient is concerned.

About one-third of these cases end fatally, while the period at which death occurs will be seen by the report of 32 cases collected by Dr. R. W. Smith, of the Richmond School of Medicine, Dublin, Ireland: 13 died within two months, 10 died within one month, 6 died within two weeks. Shock, irritative fever and the injurious effects of enforced rest in the recumbent position in treating these cases, are chief factors in producing unfavorable termination.

Of four cases which I have considered examples of this fracture, the following is a summary history: They all occurred in women and at an age beyond 75. One was an oblique fracture, and fatal from shock within two days. The next two cases recovered with tolerably useful joints, enabling them to move about with the aid of a crutch or stick quite comfortably. This, the fourth case, is, as you see, a transverse fracture, and resulted fatally from asthenia.

[In a great many cases which we have seen post mortem, and of the fractured necks of which we have made or seen made, sections, it has happened that all, as far as our recollection goes, were very fatty; some of them, in fact, having a deep yellow color. The greater frequency in women, if due to fatty changes, is easily explained by the fact that fat deposits naturally occur oftener and more abundantly in women than in men, and that their lesser activity makes them still more liable to fatty infiltrations, especially as they advance in years.] A. H. P. L.

Wounds, as Related to the Instruments which Produce them.

DR. MACEWEN (*Glasgow Medical Journal*) gives us a careful study of seventy-one cases, including one hundred and four wounds, produced by fifty-one different articles. He concludes:

1. But instruments sometimes produce scalp wounds having straight outlines and sharp, clean edges, which, in these respects, could not be distinguished from wounds produced by sharp cutting instruments.

2. Scalp wounds, which exhibit entire hair bulbs projecting from the surface of their sections, have been produced by blunt instruments.

3. Wounds exhibiting nerve filaments, or minute blood-vessels bridging the interspace between the lips of the wound toward the middle of the depth of the section, while the tissues have receded all around them, below as well as above, have been produced by blunt, non-penetrating instruments.

4. When a wound, even with sharp, well defined margins, bears in contour a resemblance to an osseous ridge in close proximity, there is a probability that it was produced by a blunt instrument, through forcible impact against the underlying osseous ridge.

5. Cut hairs found in the immediate vicinity of a wound are valuable aids in determining whether a sharp or blunt instrument has been made use of.

6. As to the diagnosis between wounds produced by instruments of the knife kind and other sharp-edged substances, such as glass, earthenware, etc., no dependence can be placed on the mere regularity of outline or sharpness of edge, or the reverse.

7. Sharp, clearly defined wounds, in certain cases, present peculiarities in their termination, which may be suffi-

cient to enable a probable diagnosis as to whether they were produced by a knife or portion of glass or earthenware.

8. The same instrument used by the same person in delivering several successive blows may produce wounds of different characters.

The Treatment of Intra-Peritoneal Injuries.

As can be well understood Sir William MacCormac regards the question of diagnosis of wound of the bowel of primary importance as upon the speedy determination of this point and prompt consequent action must altogether depend the success of treatment. The symptoms of visceral injury are in many cases so obscure that the surgeon must often find himself greatly embarrassed. An uncertain diagnosis exposes the patient to great risk if an operation be undertaken under such circumstances, whilst to leave the case untreated until the diagnosis becomes positive may seriously lessen the chances for recovery. Under such circumstances Sir William MacCormac is inclined to regard an exploration of the abdominal cavity as less dangerous to the patient than inaction.

The method of treatment hinges upon the condition of the wounded viscera. Sir William advises median section of the abdominal cavity and a careful examination of the viscera. Bleeding vessels are first ligated and the operation of enterorrhaphy is advised in all cases of punctured and incised wounds, unless the parts are so damaged that an artificial anus seems preferable. He objects to the formation of an artificial anus whenever it is possible to close the wound by suture, and he regards an artificial anus not only undesirable but unnecessary in those cases where the injury does not extend more than half way around the calibre of the tube, or where the convexity of the bowel is wounded. He says the surgeon has but half accomplished his work if he forms an artifical anus rather than at once attempt to restore the continuity of the intestine. Should the patient recover, a further operation will be required to close the fæcal fistula. "Besides should the original damage be in the upper portion of the small intestine, there is considerable probability of the individual being starved or so weakened by the escape of nutriment that he becomes unfit to be submitted successfully to any operation." Sir William MacCormac condems the use of probes for diagnostic purposes on the ground that probing these wounds is harmful to the sufferer by possibly disturbing the parts and giving rise to fæcal effusion. Three conditions are considered necessary to ensure successful suture of the intestines. (1) Two adequately broad and sufficiently wide surfaces of peritonèum must be brought into contact. (2) The mucous membrane must be excluded, for when the needle passes through the whole thickness of the gut, peritonitis generally ensues from leakage taking place along the line of the thread. (3) Rapidity of execution is of extreme importance, and that form of suture is the best which can be applied in the shortest time.

After the closure of the intestinal wound the abdominal cavity must be perfectly cleansed of all blood and foreign matter. Irrigation with a 3 per cent. solution of boric acid, at temperature of 100°, made with water previously boiled, is regarded the best and gentlest method. The external abdominal wound should be closed as after ovariotomy. If the operation be done shortly after the accident, drainage may be dispensed with. If some time has elapsed,

or if peritoneal inflammation be present, drainage is advised.

Gunshot wounds of the intestines are regarded as injuries of the most fatal character. Owing to their concealed nature the diagnosis becomes a matter of difficulty. Sir William advises that the external wound be carefully probed or sufficiently enlarged as to enable the surgeon to explore its whole length as it passes through the abdominal wall.

These injuries are attended with considerable hemorrhage and great shock. The absence of fæcal matter in the parietal wound is no proof that the intestine is not perforated. The occurrence of bloody stools is usually a late symptom. In the treatment of such injuries Sir William advises immediate abdominal section with the view of determining the extent of the injury and the treatment which should be adopted. The entire cavity and its contents should be thoroughly examined. When several small openings exist close together he considers it better to resect the portion of intestine involved. Strict cleanliness and antiseptic precautions are enjoined.

Sir William MacCormac's experience enables him to speak hopefully in regard to the operative treatment of intestinal injuries. His methods and views are entitled to careful consideration and thoughtful study. His address, to which we are indebted for these few suggestions, is well worthy of careful reading.

[Sir William MacCormac's address should be read by every one, especially those practitioners in the country who are too far removed to get the aid of surgical specialists in time to be of much use to the patient. Exploratory abdominal section is simple and should be confidently attempted by any practitioner who has the life of an injured person under his sole care, who seems to require it. Thoroughness and expedition are both very necessary, but undue haste leads to clumsiness, injury and loss of time. Irrigation after the stitching is completed should be thorough and repeated frequently.]

A. H. P. L.

When and How to Evacuate Psoas Abscess.

Mr. Edmund Owen, Surgeon to St. Mary's Hospital, contributes to the *British Medical Journal* a paper in which the proper management of psoas abscess is considered.

Mr. Owen thinks that the possibility of spontaneous cure is so small that it should be neglected. In many years' experience he has met with but one case where the abscess disappeared of itself, and aspiration has not helped matters so far as he has seen.

The best time for attacking the abscess is as soon as possible after the patient has been brought into the best possible condition. The great argument against delay is the danger that the pus may be extending between the planes of the abdominal muscles or under the iliac fascia, where it will be much more difficult to draw it off by drainage.

With regard to the operation itself, Mr. Owen says: "The method of evacuating psoas abscess, which I have adopted in a large number of cases, and which I recommend with confidence, is by a free anterior as well as posterior opening, and by then washing and draining the cavity right through. The first opening I make close above the outer end of Poupart's ligament, using the scalpel until about an inch of the length of the fibres of the aponeurosis of the external oblique has been exposed. I then scratch through the fleshy attachment of the internal oblique and transversalis, and, keeping well below the

level of the peritoneum, thrust the director into the swelling. Pus escapes and the opening is enlarged by the dressing forceps and the finger. A stiff probe is then passed through the abscess cavity and made to project beneath the skin on the outer side of the erector spinæ. With this as a guide, a counter-opening is made in the loin. The large cavity is then flushed perfectly clean with a warm antiseptic solution, and a drainage tube of the size of a pen holder is laid through the chasm for a few days, being afterwards replaced by a silk thread. The parts are liberally covered with bulky pads of wood-wool and finely picked oakum in gauze bags; these are kept in position by a towel arranged as a binder, which, for the sake of compression, is tightly drawn and fixed with safety pins. Next day the cavity is again washed out, under chloroform, if necessary, the wounds being dressed as before. After this, the less that it is interfered with the better; if the temperature does not rise, and the discharge does not soak through, the dressings may be left for three or four days, or longer. From the first day the discharge becomes thin and watery; suppuration in the ordinary sense of the word ceases, and the cavity steadily contracts into a narrow passage."—*Northwestern Lancet.*

[This is rational treatment and consistent with the best surgical methods of the day.] A. H. P. L.

VENEREAL DISEASES.

Chancre and Herpes.

We clip the following from DR. KURSMAN'S translations of Leloir's lectures on syphilis, published in *Cleveland Medical Gazette:*

We begin now a not less difficult diagnosis, that of chancre from herpes. This diagnosis is of highest importance, as you will daily observe. The following table, taken from Professor Fournier, will assist you greatly:

Herpes.	*Chancre.*
THREE ALMOST CONSTANT DIFFERENTIAL SIGNS.	
1. No ganglionic enlargement.	1. Constant adenopathy, indolent, hard, persistent, usually many ganglia are involved.
2. Base soft, not indurated.	2. Base, indurated.
3. Contour of erosion many circled formed by regular segments of small circumference.	3. Contour never present, never regular segment of small circumference, as in herpes.
EVOLUTION.	
1. Rapid limitation.	1. Limitation not so rapid.
2. Healing rapid.	2. Healing usually slow.
INCONSTANT SIGNS OF LESS VALUE.	
1. Pruriginous heat, local burning at beginning.	1. Lesion absolutely indolent, no burning or itching.
2. Lesion habitually multiple.	2. Lesion often single or multiple to a less degree than herpes.
3. Erosion of small size frequently miliary.	3. Lesions usually larger than herpes.
4. Erosions usually more superficial than chancre.	4. Lesions usually less superficial than those of herpes.
Errors to be avoided.—Possible coincidence of chancre and herpes.	

But, gentlemen, in some cases, sufficiently frequent, as you have observed, when it concerns solitary herpes with a single erosion, and true chancriform herpes simulating certain dwarf chancres, a part of the signs enumerated above would fail you, and the diagnosis would become very difficult. You have recently seen that genital herpes may react upon the inguinal ganglia. In many cases a painless inflammatory ganglionic swelling is produced, perhaps multiple, but not presenting the specific hardness of the adenopathy from chancre.

Phenate of Mercury in Syphilis.

PROFESSOR GAMBERINI, of Bologna, accepting the parasitic theory of syphilis, conceived the idea of associating a powerful parasiticide, namely, carbolic acid, with mercury, and from his suggestions MM. Boriani and Dallari easily

succeeded in producing a preparation called the phenate of mercury. It is prepared by mixing a solution of phenate of potash with a solution of bichloride of mercury. The yellowish precipitate which forms is washed with distilled water until no trace of the bichloride remains. This new salt is prescribed in pills, each containing 2 centigrammes (one-third grain), and made up with balsam of Tolu. Two pills a day are given to begin with. and the daily dose gradually increased to six. If more than this quantity is administered, gastro-enteralgia and stomatitis may be set up. The remedy has been employed successfully by the author.—*Medical and Surgical Reporter.*

Oil of Wintergreen in Gonorrheal Rheumatism.

DR. R. W. TAYLOR, relating his experience with the use of this drug, in a paper read before the American Association of Genito-Urinary Surgeons, and published in the *New York Medical Journal*, of June 4, 1887, makes the following sensible and suggestive remarks:

In this summary I have applied the term recent rheumatism to cases of about three months and less duration, since beyond that time they belong, I think, to the category of chronic cases. Out of these twelve cases prompt relief to pain was noted in ten, and a satisfactory result as to ultimate cure was reached in periods averaging from one month to ten weeks. In many instances in hospitals the date of cure can not be determined, for many patients suffering from gonorrheal rheumatism become more or less malingerers, and, from poverty or lack of moral courage, prefer to remain in the hospital, whereas, if outside, the necessities of life would prompt them to early and energetic effort. Therefore, I think that in these cases, though in some the ultimate cure seemed protracted, the showing for the wintergreen treatment is, on the whole, good. An agent which, in such a rebellious and capricious disease, will give relief to pain so uniformly, should, I think, be entitled to consideration.

I do not intend to draw dogmatic conclusions from this not extensive experience, but I am led to the opinion that this agent will be found of most benefit in recent cases, in which the fibrous structures of joints and muscles are involved, and in which there is not a large amount of serous effusion. I have an impression that in cases complicated by hydrarthrosis the agent will be more or less disappointing, and that when used in chronic cases it will not be found to be very reliable, but will take its place in the list of remedies which we use tentatively where others have failed doing more or less temporary good. In most of these cases structural changes have taken place, and these the oil of wintergreen, I think, is powerless to remove. Nor do I think that it will be of much service in relieving and curing that condition of cachexia into which these patients so frequently fall.

I think I may speak somewhat hopefully, even warmly, of the tendency of the drug to allay urethral irritation, which is a great advantage, since there there is no doubt that the alkalies, iodides, and salicylates fail to produce a cure for the reason that their irritant action on the bladder and urethra necessitates their discontinuance.

While I have thus prominently brought forward this remedy in the treatment of gonorrheal rheumatism, I must not be understood as relying upon it, or, indeed, any internal remedy alone, since we frequently have to use cooling lotions, counter-irritants, blis-

ters, actual cautery, massage, immovable dressings, and other means as adjuvants. In many old cases, however, some of these means often effect the cure without the aid of internal medication.

Report of a Case of Sexual Hypochondriasis.

On the 11th of March last, Loring, D. C., aged 20, a carpenter, applied at the clinic to have his testicles removed, stating that this was the only way whereby he would be enabled to cease from committing masturbation ; of this he felt well assured. His condition preyed upon his mind continually, and he wished to put a stop to the disgusting habit to which he was a martyr. He declared that unless he could find some one who was willing to remove his testicles he would commit murder, or some other terrible crime.

Six months previously he attempted to castrate himself, but his courage failed, and he abandoned the attempt. Two weeks before presenting himself at the clinic, he applied acid to the penis, with the hope of making the organ too sore to handle, but this had not prevented his masturbating.

He states that his sexual desires are unnaturally great, but that owing to his want of confidence as to his ability to successfully approach a female, he entertains an aversion to the sex.

He began to masturbate at the age of seven, and has continued the practice on an average of twice a night for thirteen years. Lately he has committed the act as often as ten times in a singleday.

He does not suffer from nocturnal emissions. Occasionally he experiences sharp shooting pains along the course of the urethra, extending into the cord and testicles. He is compelled to urinate from twelve to fourteen times during the day, but is not annoyed in this way at night. The stream is started with difficulty ; is small, twisted, and forked, with dribbling into his clothes after the act is apparently completed. He has never passed blood.

He states that his appetite is poor ; that he has a feeling of gastric oppression, with disturbed sleep, heavy pains in the front and back of head ; he is easily fatigued, his hand is unsteady, and he has suffered from pain in the back for the past year.

Professor Gross, in his remarks on the case, pointed out that the patient's troubles were entirely mental ; that unless he could be made to listen to reason, and unless a manly spirit could be aroused in him, or a profound mental impression made upon the individual, there would be but little hope of benefiting him.

He called attention to the fact that owing to the undue and prolonged excitement of the parts involved, there was exaggerated irritability of the medullary and vaso-motor centres, which would be ultimately followed by exhaustion or anæmia of the lumbar portion of the spinal cord ; a condition known as neurasthenia.

On examination a stricture was found behind the meatus, and another in the membranous portion of the urethra. There was marked hyperæsthesia. The meatus was divided, and a steel bougie of proper size was passed, and a drachm of bromide of soda was ordered to be taken every night at bedtime. The bougie was directed to be passed twice a week, to be gradually increased in size.

This treatment was pursued for three weeks without benefit, when both the patient and his mother implored the writer to remove the testicles. Hoping to benefit the poor creature, a pretended operation was performed.

Accordingly, anatomical plates referring to the genital organs were shown and explained to the unfortunate youth, and he was made to understand that it would not be necessary to castrate him, but that every benefit would be attained by cutting the vas deferens. He was greatly delighted that at last his wishes were to be acceded to.

He was etherized, and in order to produce a greater mental effect he was circumcised, and afterwards an incision some three or four inches long was made over each abdominal ring, of course, merely cutting through the skin and superficial fasciæ. The wound was closed by suture and properly dressed; a large bandage being applied to fully impress the patient with the gravity of the operation. He was kept in bed for two weeks, and a few days after was discharged from the hospital.

The writer was informed that the patient returned to his unfortunate habit at the end of a month from the time that he left the establishment, so that the efforts to permanently benefit him by medical and surgical means failed entirely, although the strong impression made was of undoubted temporary advantage.—*Med. and Surg. Reporter.*

DISEASES OF THE SKIN.

Molluscum Sebaceum.

This disease, formerly known as molluscum contagiosum, has been named molluscum epitheliale and is also called by the name given it by Virchow—epithelioma molluscum. It consists of roundish elevations, wart-like in appearance, and having a waxy, whitish or pinkish appearance. These papules or tubercles are more or less flattened in appearance and show more or less depression in the centre. Occasionally in the centre of this depression a blackish point is observed. The lesions vary in size from the head of a pin to a split pea, or even a cherry. They occur singly or in numbers according as they are large or small. In appearance they are generally waxy, more especially when small; when they become larger they assume a shining, glistening appearance, owing to the tension to which the skin is subjected. In consistence they are firm, wart-like and easily movable upon the subjacent tissues.

The localities most often affected are the genitals and face and the tendency is to group. I have seen the disease occur most often upon the upper portion of the cheek, involving the eyelid and nose. The extremities are sometimes attacked and, as a matter of fact, any portion of the body provided with sebaceous glands may be the seat of this affection. The individual lesions increase in size but very slowly. They rarely take an inflammatory course, but when this occurs they are likely to slough, this process terminating the course of the affection.

Children are most often subject to molluscum sebaceum, although adults are occasionally met with who have the trouble. In all of these, however, the general condition is not good. It is said to be caused in some by local irritation. As to its contagious nature, there is still a great deal of doubt and the records to establish this point are not, by any means, satisfactory, more especially since inoculations, made by competent observers, have proven negative.

We have the same difference of opinion existing in regard to the pathology of this disease, Of this much we are reasonably certain: The process occurs in the sebaceous glands and upon examining the contents of one of these papules we find that it contains peculiar cell-like bodies which have been

called the molluscous bodies. The weight of opinion seems to favor the theory that the disease is primarily an affection of the mucous layer of the epidermis and the prickle cells are transformed into the molluscous bodies.

Molluscum sebaceum is not difficult to recognize. It is to be differentiated from sebaceous cyst, molluscum fibrosum and papillary warts. In sebaceous cyst we have the skin covering it perfectly normal and moreover no central depression or *punctum*. In molluscum fibrosum or fibroids of the skin, there is a firmer growth, generally sessile or pedunculated and when not markedely so, still wanting in that central depression and peculiar waxy or shining appearance of the skin. Papillary warts are generally conical or like a truncated cone and are not covered by a smooth skin but always present more or less unevenness of the surface. Once seen, molluscum sebaceum is easily recognized when it presents itself again. The disease is not a common one, by any means, still it cannot be regarded as a rarity.

The treatment is entirely local so far as the affection itself is concerned. As the individuals exhibiting it are always in a poor condition of health, it is always advisable to place them in a better state so as to prevent any recurrence in the future. Small lesions may be treated by stimulating applications, such as the white precipitate ointment or similar preparations. When larger surgical procedures are preferable, removal by the knife or destruction by means of caustics are methods employed. Enucleation of the sac and contents is one of the best methods. Some prefer to make a small incision and then cauterize the interior of each lesion. A good method also is by electrolysis used in the same manner as for sebaceous cysts. Some claim success for a method of which I have had no experience. This consists in exercising continuous and moderate pressure upon the lesion. It seems to me to be tedious and would not recommend itself to patients on that account. Besides, the scars following operative procedures in molluscum sebaceum are practically imperceptible.

Good results follow proper operative interference. The lesions are apt to recur if there be only partial destruction of the lining sac. If left alone there is a tendency to spontaneous recovery. Still, interference hastens a cure if it be properly applied.—*St. Louis Medical and Surgical Journal.*

DISEASES OF THE EYE AND EAR.

"Massage" for the Treatment of Corneal Opacities.

There are, perhaps, no affections of the eye which cause more disappointment to both surgeon and patient than the opacities of the cornea, which are left by keratitis and ulceration. After prolonged and varied treatment, the inflammation, which has perhaps undergone many remissions and relapses, finally subsides, only to leave an eye which is practically useless, owing to the loss of transparency of a great part of the cornea. So many different modes of treatment have been suggested for this condition, and, after trial, have been abandoned as useless, that there is much natural scepticism as to the efficacy of any new proceeding, and most surgeons trust to the effect of time and Pagenstecher's ointment. In a paper read before the British Medical Association at Brighton, Mr. SNELL redirected attention to friction or "massage," as a mode of hastening the disappearance of corneal opacities. Although not capable of effecting all that was at

one time claimed for it, it has now stood the test of time, and may fairly be said to have met with more success than any other single mode of treatment. First proposed by Pagenstecher, in 1872, as a means of hastening the absorption of corneal opacities it has since been advocated by many writers. But Dantziger (*Archiv fur Ophthal.*), has shown that its sphere of usefulness can be considerably enlarged, if it be preceded by the mechanical removal of the opaque corneal tissue by scraping. The employment of "massage" during cicatrization then prevents the newly deposited tissue becoming opaque. Although there is some difference of opinion on points of detail, the following is probably the best mode of employing the "massage." The inner surface of the eyelid should be lubricated, preferably with Pagenstecher's ointment; the pulp of the finger is then laid on the lid, and the latter moved to and fro over the cornea with great rapidity, in a direction radiating from the centre of the cornea. The operation is continued for about a minute, and repeated daily, as long as improvement continues to take place. The results of Dantziger's cases would encourage us to persevere for a considerable time. In a patient in whom a corneal opacity had existed for four years, and in whom vision was reduced to counting of fingers at six feet, gradual improvement continued to take place for the whole five months during which the "massage" was continued: vision being, fingers, at 15 feet after two weeks; 12 J. after twelve weeks; and $\frac{20}{200}$ and 8 J. at 5 inches after five months. No doubt the necessity for continuing the treatment for so long a time has hindered its adoption; but an intelligent patient can easily be taught to perform the "massage" for himself. The preliminary removal of the corneal opacity would seem best adapted for cases of dense opacities affecting a limited area. Cocaine produces sufficient anæsthesia, the reaction is considerable, and usually lasts till the fifth or eighth day. The "massage" may be commenced as soon as the epithelium has been re-formed, the presence of vessels on the cornea not being considered a contra-indication. Some cases seem to be unsuited for this treatment, and suffer after the "massage" from prolonged injection of the conjunctiva; but cases of old opacity, in which all the inflammatory symptoms have long subsided appear to be more benefited by it than by any other mode of treatment.—*Therapeutic Gazette.—The Lancet.*

Herpes Zoster.

℞. Potassi chloratis, ʒ j: tinct. ferri chlor., ℥ ss; aqua, ℥ iiss. M. Sig.—Teaspoonful in water every four hours.—*Medical Specialist.*

Chronic Eczema.

℞. Unguenti hydrargyri oleatis. plumbi carbonatis, pulv. marantæ, āā ʒ j; naphtholi, gr. xx; unguenti zinci oxidi, ℥ j; ft. ungt. M. Sig.—Apply twice daily.—*Ibid.*

Psoriasis.

GUIBAUT recommends the following in psoriasis: Sodii arsen. gr. 1.60; ext. gentian, gr. iss. In pill form. Two or three pills after each meal.

Also, friction twice daily with adipis, ℥ iii; acid. pyrogallic, ʒ iiss to ʒ iv. Also, a thorough cleansing with soap every two days.—*Les Nouv. Remèdes.—Medical and Surgical Reporter.*

An Ointment for Freckles.

HEBRA: ℞. Hydrarg. precipitat. albi., gr. 75; bismuth. subnitrat., gr. 75; glycerinæ unguent, ʒ 5; M. ft. unguent. Sig.—Apply every two or three days; it irritates if used too frequently.—*Ibid.*

FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

General Principles Involved in Amputation, with a Consideration of Some Points in the Technique.

DR. FREDERIC S. DENNIS, in a clinical lecture published in the *Journal of the American Medical Association*, said:

It is sometimes necessary to amputate as soon as consistent with safety. Now, what is to guide the surgeon in his decision of so important a question? In cases of compound comminuted fracture, with injury to the main artery of the limb and with great loss and destruction of tissue in the soft parts, the hemorrhage is often alarming, and amputation is called for imperatively as the only salvation for the patient. What is the earliest moment a surgeon should operate? Never during profound shock; and the rule which must govern a surgeon is, to employ all means to control hemorrhage and to bring about reaction from shock, and wait. If the patient has pallor and coldness of skin, weak and feeble pulse, sighing respiration, non-reacting pupils, traumatic delirium, internal injuries, no amputation is indicated. The earliest possible time an amputation can be performed, under great necessity from hemorrhage, is when reaction is beginning; but unless the patient is likely to become exsanguined by delay, the beginning of reaction is an unfavorable period for operation, and it is wise to defer it until reaction is fully established. Amputation should not be performed with a subnormal temperature, a cold skin, a feeble rapid pulse, or during traumatic delirium —especially in children. The condition, then, of the temperature, the skin, the character of the pulse and the mental state, are all important factors in the solution of this problem. I have seen an Esmarch elastic bandage applied above a lacerated wound, over sound tissue, and when the flaps were made a certain amount of sloughing followed from the compression. The wound itself is the proper place to apply firm compression, never above the seat of the wound. This point is one of practical importance, because the elastic bandage, as a means of controlling hemorrhage, has been misused; instead of applying the compression over the bleeding part, it has been carried above the bleeding part and over sound tissue. As a result of this, gangrene in the flaps may occur, with its accompanying septicæmia.

The hygienic conditions are most important in affecting the mortality. Patients in the country do better than those in the city, and the latter do better in private practice than in hospitals. Always secure for a patient abundance of fresh air and plenty of sunlight. Too much stress cannot be placed upon his hygienic surroundings. While the weather, age of patient, seat of amputation, the part of the bone sawn through, whether for injury or disease or deformity—above all and beyond all the hygienic conditions stand out foremost; and if we exclude serious organic disease, nothing is so important as the sanitary arrangements. Sir James Y. Simpson showed that five times as many deaths occurred after amputations in large city hospitals as in private and country practice.

We will now discuss the indications for an amputation:

Aneurism.
Malignant disease.
Perforating ulcer of foot.
Uncontrollable hemorrhage (primary or secondary).
The operation of expediency in deformity, in tumors and tetanus.
A disease of the joint.
The moist variety of gangrene.
In certain compound fractures and dislocation.
Old sloughing and varicose ulcers.
Necrosis of bone.

These ten indications for amputations have thus been arranged in an acrostic, which will always enable the student or surgeon to have at his command the information.

Requisites of a Good Stump.

1. The bone must be amply covered.
2. The flaps must not be adherent to the bone nor exert pressure on traction upon the cicatrix.
3. The nerves must not be adherent to bone or cicatrix.
4. The nerves must be cut high enough so as not to be affected by pressure or by atmospheric changes.
5. The bone must be smooth and capable of bearing firm pressure upon it.

Characteristics of a Bad Stump.

1. Necrosis at end of bone.	Sequestrum from injury to bone in sawing, by rough use of saw, by suppuration in bone, by injury to periosteum, by sawing without irrigation to prevent the saw from acting as an actual cautery.
2. Conical shaped stump.	Insufficient covering, spasmodic retraction of muscles, growth of bone.
3. Neuralgia of stump.	External pressure, local and constitutional causes, bulbous enlargement, adhesion to cicatrix.

We may now direct attention to a careful study of the technique of the operation in its present perfected state. For the purposes of description of an amputation in general the following points are to be considered in an amputation of the leg :

1. Preparation of patient.
2. Provision against hemorrhage before operation.
3. Formation of a suitable flap.
4. Section of the bone.
5. Provision against hemorrhage during operation.
6. Treatment of wound.

The preparation of the patient consists in a careful study of the patient's history, and also the special preparation of the member to be removed. Before the operation the heart and lungs should be examined, the urine analyzed, the general habits of the patient inquired into with reference to intemperance, and opium habit, or previous disease, and other points of interest which influence the treatment after operation, as well as the mortality. In other words, the surgeon should study thoroughly the individual upon whom he is to operate, and make himself complete master of the situation. The local attention to the part consists in thorough ablution, shaving, and free irrigation with carbolic acid or bichloride of mercury solution.

There is no real inconsistency between antiseptic surgery, as now understood, and treating a wound openly. A careful study of the principles of antiseptic surgery shows that both methods are in accord with its precepts, only that in the open method the wound heals by secondary union, and still the wound is aseptic. In the open method the stump is irrigated every few hours with carbolic acid solution. Balsam of Peru is used to stimulate the granulations, and in ten days the granulating surfaces upon the flaps are approximated, and healing takes place between these two granulating, instead of between two fresh, surfaces. In epidemics of diphtheria I have found the open method preferable, because a healthy granulation surface is a barrier to the entrance of septic poison.

In conclusion, gentlemen, endeavor to obtain primary union in all amputations by using every detail requisite to success. When the conditions are unfavorable, aim at secondary union by the open method; but remember that even if the open method is best suited to certain cases, it is still antiseptic surgery in its highest and broadest sense, and that good judgment and a due regard for the best interests of the patient has persuaded you to adopt the method which is less brilliant in its technique, but more brilliant in its ultimate results.

Unique Case of Dislocation of the Ribs.

DR. FIFIELD reported the following case to the Boston Society for Medical Observation :

A boy about eight years old, standing near a peddler's wagon, was thrown down by some children underneath the hind wheels of the wagon, the horse started forward, and the wagon wheel went over the child's chest; over the left chest in front. Perhaps half an hour after this I saw him. There was then a dislocation of some three of the ribs (I don't remember the exact ribs) near the region of the heart; a dislocation forwards, the cartilages of the ribs lying behind, the ribs projecting in front. The child was described as having been very blue, livid, and gasping for breath, shortly after the accident. When I saw him he was breathing with considerable ease, but upon any attempt being made to push the ribs backward into their places, he again grew livid, and respiration threatening to cease, I was obliged to desist from my endeavors. I think I tried twice in this way, and on each occasion the interference with respiration made me let him alone.

There was obviously no way of placing the cartilages in any position, except by cutting a hole, and putting the hand in. I advised to have him left entirely alone, hoping that this would restore the position. The following day the projection of the ribs was not so noticeable, and within three days the projection had almost entirely disappeared, and the cartilages had resumed very nearly their natural place. Upon consulting all the works on surgery in my library, I could find no allusion to this accident, except in one of the volumes of external pathology by Barnes, and some person associated with him. In that work it speaks of the dislocation of the ribs forward, the cartilages being placed behind. It states that there is no well authenticated case on record. But one case is cited, and it is cited with expressions of disbelief in the occurrence of the accident, and the narrator is thought either to have drawn upon his fancy, or that the case was so ill observed that it was unworthy of any notice. I certainly have not ever seen it in the best works of English surgery. I find not the slighest allusion to any such accident.

Ring Pessary in Treatment of Fractured Patella.

A subscriber writing to the *Md. Med. Journal* says ; I desire to call attention to a simple, inexpensive and efficient plan for treating fracture of the patella. The only articles required are a gum ring pessary, two strips of adhesive plaster two inches wide and long enough to go around the limb, one above and the other below the knee, and a few yards of muslin bandage. Bring the fragments as close together as possible and encircle with the ring, secure the ring in position by two strips of muslin passing through it and connecting with the adhesive strips. Then bandage well ; with this treatment considerable latitude of motion may be allowed the patient in bed without injury, and in most cases he may be allowed to sit up in three weeks. Six cases have been treated in this way within the last ten years, all of which have resulted satisfactorily.—*Medical Summary.*

[Seemingly a very good suggestion and worthy of extensive trial.] A.H.P.L.

Adhesive Plaster.

DR. ADDINELL HEWSON recently gave a description of a method of preparing adhesive plaster :

Bookbinder's paste, which in its pure and clean state is simply a wheaten flour paste, made in a porcelain crock by boiling thoroughly one part of flour in three or four parts of cleanly filtered water, always for twenty minutes, stirring the mixture all that time by a clean, new wooden or bone spatula, is applied by a thin strip of wood directly to the bare, clean integumentary surface of one of the edges which are to be secured, and then one end of a strip of gauze is to be laid on it and rubbed gently and smoothly, so that the paste will come through its meshes. It should be applied no nearer the edge of the wound than collodion would be. It dries as quickly as the latter, and has, indeed, the advantage of always drying fast even on a moist or dampened surface—a property wanting in liquid glass as well as glue, even where expedients had been previously used to dry the parts. When the end of the strip first applied is fixed by the paste, some of the latter is to be put on the other side of the wound, and the gauze strip drawn smoothly across it and pressed on that side; the surgeon watching the contact of the lips as to how well it is secured, rectifying any irregularity to be seen through the meshes by a probe. Sometimes, in a long wound, it may be advisable to secure the initial extremities of the gauze strips alternately on both sides. On other occasions it may be better to fix them on one side, and draw all by their free extremities across, and so get equal amount of traction and tension in that way.

The paste, when made strictly according to the directions I have given, and kept covered in a dry place, will not sour, and such paste can be made the vehicle of various kinds of antiseptics and disinfectants. By the addition of a small quantity of corrosive sublimate (one grain to a pint), immediately after it is fully boiled, it effectually prevents the germination and development of various kinds of microbes wherever it may be applied.—*Polyclinic.*

New Radical Operation for Hæmorrhoids.

DR. LANGE prefaced his description of the operation by stating that, in mild cases, he had obtained good results by injecting equal parts of glycerin and pure carbolic acid. In severe cases, complicated with prolapse of the mucous membrane, he had adopted a method of operation that was to be commended not only on account of its facility and the completeness of the cure, but because of the fact that it was not followed by suppuration and necrosis of the tissues. It consisted in excising the entire affected portion of the mucous membrane, and in suturing the edge of the remaining part to the integument. The essential advantages were the perfectly aseptic character of the process, and the small loss of blood. Dr. Lange described the operation briefly as follows:

After the patient has been duly prepared by proper attention to diet and the thorough evacuation of the bowels, a sponge pushed high up into the rectum and the lower part of the gut thoroughly irrigated with a weak solution of corrosive sublimate, followed by one of boro-salicylic acid, the patient is thoroughly anæsthetized, so as to avoid straining and consequent venous congestion. The field of operation is constantly irrigated with an ice-cold boro-salicylic solution. An incision is carried around the anal orifice at the line of junction between the skin and mucous membrane, the parts being put on the stretch by making traction with

tenacula. If the skin is flabby and in excess, a portion of it may be included within the incision; the latter is carried downward until it reaches the fibres of the external sphincter, the distended hæmorrhoids being easily avoided. The mucous membrane is easily separated from the sphincter as far upward as may be deemed necessary. In this way the entire degenerated portion is isolated, and, as far as the arterial blood supply is concerned, remains connected with the healthy tissue only by the vessels that supply it. So far but few bleeding points require to be secured. If now the entire diseased part were excised, there would undoubtedly be a considerable loss of blood, as occurred in my first case, the mucous membrane would retract as it was divided, and the operation would be long and embarrassing. I therefore insert a number of buried sutures of iodoform-catgut close to each other between the base of the external flap and that of the separated mucous membrane; these do not include any of the fibers of the sphincter, neither do they penetrate into the rectum. I lay particular stress upon the avoidance of the sphincter, since I have observed in several cases that the patient suffers from severe tenesmus if the stitches penetrate the sphincter. The sutures may be either continuous or interrupted; they secure nearly all the vessels supplying the hæmorrhoidal portion. The mucous membrane is excised in parts at a point from one-half to one centimetre above this line of sutures, and the cut edges are approximated by sutures of silk-worm gut. In several instances I have passed deep stitches which included the entire sphincter, in order to diminish the tension; but I think that these can be dispensed with. From the beginning of the third day following the operation the patient is allowed to have a passage daily, and is kept on liquid diet for a week, at the end of which time the sutures may be removed. A few days later he may be allowed to get up, and at the beginning of the third week he will, in my experience, be able to attend to his business. Much of the success of this operation depends upon the technique. I can testify, from my experience in about a dozen cases, that the rapidity and completeness of the healing process, the comfort of the patient, and, in short, the neatness of the whole procedure, induce me to prefer it in suitable cases to other methods, Allingham's, Langenbeck's, etc. Strict antisepsis and the avoidance of hemorrhage, in the manner described, I regard as indispensable to succcess.—*New York Medical Journal.*

Pinus Canadensis in the Treatment of Burns.

Dr. W. C. Wile, of Philadelphia (*Medical Register*), says:

Many remedies have at one time or another been proposed for the surgical condition following the application of excessive heat to the body, and, while some of these are of value, still all are more or less unsatisfactory. The alleviation of the pain and suffering attendant upon burns is one of the most important points in the case toward which the surgeon directs his efforts. The shock from this cause alone is sufficient oftentimes to produce death, and always is great. Accidentally, I recently discovered a remedy which is easily applied and exceedingly prompt in its action. I was called in some haste to a little child, about three weeks ago, who was badly burned about the hands and face, from falling on a hot stove. The burns were deep, the pain excessive, and the shock very considerable. I sent to the drug store for a mixture

of lime water, olive oil, and carbolic acid. While waiting for this, I prepared to give the child a hypodermic injection of morphine, with which to allay the agony, which was so great that convulsions seemed imminent. While I was getting ready to do this, I espied upon the shelf a bottle of pinus canadensis (colorless) which I had some time before ordered to be diluted as a vaginal wash for the mother. Remembering its wonderful soothing influence in acute inflammations of the vagina, I at once concluded to try it. Taking a corner of a soft handkerchief, I rapidly painted the injured parts, when, like magic, the pain ceased. You can well imagine my surprise and delight at the result. I directed a camels' hair brush to be purchased, and had the mother make free applications, and the case had no other treatment, save a little iodoform ointment later on. Since this I have tried it in several cases, both slight and severe, and with the same delightful results.—*New York Medical Journal.*

Ligature of the Innominate.

As this is a somewhat rare operation, the following brief notice by its author, THOS. HENDERSON, which recently appeared in the *Lancet*, is worthy of reproduction: The patient, a man of about forty-five years, was suffering intense pain from pressure by a very perceptible aneurism of the second part of the right subclavian. Other means having been tried without result, Professor Durant, of Rome, determined upon ligature of the innominate. Accordingly the operation was performed with strict antiseptic precautions, the vessel being tied in two places — viz., immediately below the junction of the subclavian and common carotid, and again slightly lower down. The vertebral artery was also tied. The ligature used was No. 3 carbolized catgut. The after progress, up to the present, has been most satisfactory. Circulation in the right upper limb and side of the head has been completely restored, and the patient's general health is good, with the exception of obstinate constipation, which may account for a rise of temperature having occurred. The external wound, excepting a small drainage aperture, has healed by first intention. The result is very good when we consider the gravity of the operation.—*St. Louis Medical and Surgical Journal.*

Report of a Case of Ventral Hernia Successfully Treated by Operation, with a Suggestion as to the Method of Operation.

DR. J. EDWIN MICHAEL, of Baltimore, read a paper before the American Surgical Association having the above title, of which the following is an abstract:

A stout woman, forty-five years of age, had a ventral hernia, and on account of that great annoyance experienced in the use of pads and bandages, she insisted on an operation. March 15, 1886, a free incision was made in the median line. The sac was carefully separated from surrounding tissues, and was then emptied of its contents and opened. The sac was cut off close to the margin of the ring. Strong silver wire sutures were passed, a little less than half an inch apart, having a hold of half to three-fourths of an inch. The sutures included the peritoneal, muscular, and tendinous structures only. These were twisted, and perforated shot employed. The wire was then cut off close. The skin and subcutaneous tissues were secured with catgut sutures. The wound united rapidly. In October examination of the wound showed it to be firmly united. The sutures could be felt, but gave no in-

convenience. In his remarks the speaker stated that his object in using the wire sutures in this manner was the expectation that they would be surrounded by a mass of cicatricial tissue, making a permanent closure of the ring. As far as he was aware he had used the wire for this purpose without precedent. —*Md. Medical Journal.*

Weir on the Radical Cure of Hernia.

Dr. R. F. Weir gives the following conclusions (*Medical Record,*) on the cure of irreducible hernias by Heaton's injection methodand by radical operation :

1. That small reducible and easily controlled inguinal hernias can with safety be treated with Heaton's injection, and with a reasonable prospect of success—30 per cent. of recoveries.

2. That in similar hernias in children, in which the use of the truss has failed, Heaton's injection is to be recommended as a particularly successful procedure.

3. That in unmanageable, painful, irreducible hernias, demanding surgical interference, and sometimes those in which Heaton has failed, the radical operation should be resorted to with the sac tucked up or tied off, as the surgeon may determine, but with a high and complete suturing of the canal.

4. That when omentum is found in a hernia it should be securely tied and resected.

5. That the wound in the region of the external ring should be healed by granulation to afford a cicatricial barrier, as an additional factor in the cure.

Wild Rosemary for Mosquito Bites.

In the same journal it is stated that a teaspoonful of tincture of wild rosemary (*Ledum palustre*), added to half a tumblerful of water, has been recommended as a lotion for the bites of the mosquito and the gnat. It should be applied as soon as the bite is perceived. —*N. Y. Medical Journal.*

Superficial Burns.

The latest remedy for superficial burns is the contents of a mineral water siphon. The pain is said to be stopped instantly. E.

Removal of Warts.

Twelve grains of corrosive sublimate to one ounce of collodion is said to make an excellent application for the removal of warts. Apply a little every day with a camel's hair pencil. E.

Benzoltropin as an Anæsthetic.

The latest local anæsthetic is benzoltropin, prepared by Prof. Filehne of Breslau, by uniting tropin from atropia with benzoic acid. It also possesses powerful mydriatic properties. E.

The Tooth-Brush in Plastic Surgery.

Dr. Hal. C. Wyman, of Detroit, writes to the *Medical Register* that he has found the tooth-brush a most invaluable means of controlling hemorrhage, in a great variety of operations, mainly of a plastic character :

The principles concerned in the use of this instrument are the same as those which operate in the use of the curette in various intrauterine surgical operations, viz : a laceration or teasing of the blood vessels, so that the blood corpuscles become entangled in a mesh of fibrous tissues, and thereby plug the vessels, preventing the escape of blood; or the internal coat of the small vessels retracts and plugs the opening from which blood would otherwise escape.

When the incision is made and the blood begins to ooze freely from its sides and bottom, the brush is stroked briskly over the wound, constantly brushing away the blood as it oozes out

until, under frequently repeated brushings, the cut vessels are frayed or teased out and the mesh of lacerated tissues traps the blood corpuscles and coagula, preventing further hemorrhage.

[Good treatment, no doubt, if judiciously employed, but apt to do much harm.] A. H. P. L.

Transperitoneal Nephrectomy.

At a recent meeting of the Paris Surgical Society, M. TERRIER communicated a note on a new method of performing transperitoneal nephrectomy. The abdomen is opened in the middle line, and the intestine pushed aside so as to uncover the peritoneal membrane covering the kidney. A vertical incision is then made in the membrane, the edges of which are held back with clamps. After removal of the tumor, the pedicle and the ureter are tied and brought forward through the peritoneal incision to the abdominal wound, where they are secured. In this manner the peritoneal cavity is closed on all sides. M. Terrier claims that this operation does not necessitate drainage through the loin, as has generally been supposed.—*British Medical Journal.*

A Substitute for Iodoform.

CHASSAIGNAC (*New Orleans Med. and Surg. Jour.*) recommends the oxyiodide (subiodide) of bismuth as an efficient substitute for iodoform. He describes it as of a bright brick-red color, impalpable when well powdered, almost odorless and tasteless, insoluble in water, alcohol, ether or chloroform, and not imparting its color to linen. It may be made, he says, so as to cost only from $3 to $3.50 a pound, although ten years ago, when it was recommended by Dr. A. S. Reynolds, its cost was a bar to its general adoption. Dusted on a raw surface, it produces a thin, silvery film, but causes no stinging. The author gives the following formula for its preparation, devised by Mr. J. W England, and published in the *American Journal of Pharmacy:* Bismuth subnitrate, 174 grains; nitric acid, 3 fluid ounces; hot water, 12 fluid ounces. Dissolve the bismuth salt in the acid in a porcelain capsule with the aid of heat, and add the hot water gradually, stirring after each addition; then add the solution gradually to a solution of 663 grains of potassium iodide in twenty-eight ounces of hot water, agitating well after each addition. The agitation should be continued until the decomposition is complete; then the precipitate should be filtered out at once, washed with warm water, dried and powdered.—*N. Y. Medical Journal.*

Epistaxis.

DR. S. C. STONE, writing to the *Med. and Surg. Reporter*, says that ordinary chewing gum, rapidly chewed for a few minutes, will relieve almost every case.

Lamium Album as a Hæmostatic.

M. FLORAIN (*Bull. Gén. de Thérap.*) reports satisfactory results from the use of the dead nettle (*Lamium album*) in cases of metrorrhagia, after the more or less complete failure of various other hæmostatics. He used a tincture of the stems and root, made with white wine, in the following formula: tincture of *Lamium album*, 100 parts; syrup, 50 parts; water, 25 parts. A dessertspoonful is given every half hour until the hemorrhage stops, and then every four hours.

From the fresh stems of the plant, gathered at the time of flowering, the author has obtained an alkaloid, lamine, which, either as the sulphate or the hydrochloride, he has used hypodermically with the effect of promptly arresting

hemorrhage without producing any symptoms of poisoning. The dose of the alkaloid is not mentioned.—*N. Y. Medical Journal.*

VENEREAL DISEASES.

The Effects of Thallium Salts on Gonococci and on their Employment in the Treatment of Gonorrhea.

Dr. Kreis obtained pure cultures of gonococci by inoculating with gonorrhea pus a nutritive medium, consisting of agar-agar (Ceylon moss, graciellaria or plocaria lichenoides) and of meat-peptone, and exposing this to a temperature of 36°–38° C. (96.8°–100.2° F.) After a series of carefully and repeatedly controlled experiments, he ascertained that even weak solutions of only one fourth to one-half per cent. of sulphate of thallium completely destroy the cultures of gonococci. He also tested the effects of the same solutions on divers other kinds of bacteria,—viz., on those in anthrax and glanders, on the staphylococcus aureus, and on urine micrococci, and found that they likewise kill, without exception, all these micro-organisms. Professor Goll subsequently practically proved these theoretical conclusions by employing thallium salts with the most satisfactory results in the treatment of gonorrhœa, by injections of solutions containing one and one-half per cent. to two per cent. of thallium salts, hereby shortening by fourteen to eighteen days the duration of cure compared with other methods. Referring to these injections, Professor Goll remarks: For the success of the injections much depends upon the manner in which they are administered. An easily working syringe with a slightly bulbous point, holding ten cubic centimetres of fluid, ought to be used. Each injection must be double; the first is left to flow off immediately, while the second is retained for a few minutes. It is advisable fully to instruct the patient in this manipulation, the medical attendant making a few injections himself and having afterwards some made in his presence by the patient. Without these precautions the injections will be but imperfectly made, which is most frequently the case, and explains the many failures of the treatment of gonorrhea by whatever kind of injection. The well known complications with irritability of the bladder, cystitis and especially epididymitis very rarely occur during a properly carried out treatment with thallium salts, and in the majority of cases not at all. Certain forms of incipient cystitis, pyelitis and pyelonephritis, and similar affections of the urinary organs, caused by the migration of gonococci into the lymphatic ducts of the mucous and submucous membranes, or by formation of pus and decomposition of the urine, may in many cases, by a combined treatment, with thallium preparations, be arrested, or at any rate more rapidly subdued, than by other remedies. Professor Goll further states that he has no experience on the influence of the sulphate of thallium on gonorrhea in women, which frequently gives rise to very troublesome combinations (see Bumm, *Gonorrhoeische Schleimhaut Erkrankungen beim Weibe*, Gonorrhœic Diseases of the Mucous Membrane in Women, 1885); but he confidently expects favorable results in these cases also. He particularly recommends thallium bougies as very efficacious, easily applied in private practice, especially in the treatment of chronic gonorrhea. He at present employs for this purpose bougies of butter of cacao with five per cent. of sulphate of thallium. He also tried the tannate of thallium, but entirely discarded it, having found its action, like that of nitrate

of silver, too intensely caustic and coagulating. It is of the greatest importance in the treatment of chronic gonorrhea that the medicament be brought as high up as possible into the urethra, the seat of the disease very frequently being in the posterior portion of the passage. Bougies of butter of cacao are very easily introduced, and it matters little if they break within the urethra, as they may be, without difficulty and perfectly painlessly, pushed upwards to the seat of the disease by means of a common bougie of vulcanite or celluloid. Preparations of thallium will very likely soon be extensively used, and form an important remedy in the treatment of gonorrheal complaints.— *London Med. Record.—Therapeutic Gazette.*

Noeggerath on the Results of Gonorrhea.

DR. SINCLAIR, in *Manchester Medical Chronicle:*

1. Gonorrhea in the man, as well as in the woman, persists for the whole lifetime, in spite of apparent cure.

2. There is a latent gonorrhea in the man as well as in the woman.

3. Latent gonorrhea in the man as well as in the woman may evoke in a hitherto healthy individual either a latent gonorrhea or the symptoms of an acute attack.

4. Latent gonorrhea in the woman manifests itself in course of time by perimetritis, acute, chronic, or recurring, or by ovaritis, or as a catarrh of some definite portions of the genital mucous membrane.

5. The wives of men who at any time of their lives have had gonorrhea, are, as a rule, sterile.

6. Such women, if they do become pregnant, either abort or bear only one child. Exceptionally three or four children are born.

7. From the discharge of a woman affected with latent gonorrhea, a fungus may be cultivated which is exactly analogous to that obtained from the discharge of acute gonorrhea in the man.

I am only too conscious that not fifty, but five hundred and more observations, and much more extended experiments, are required to impress upon the propositions the stamp of established thesis.

On the subject of sterility as a consequence of latent gonorrhea, Noeggerath carries his conclusions further than the evidence produced seems to justify. He maintains that gonorrhea is a common cause of sterility in the man, producing azoospermia, and he gives cases in proof. He is more convincing in dealing with the analogous effect on women, and he makes out a better case, though here also he leaves an impression of going beyond the record.

Noeggerath never hints at operative treatment, except to condemn it, but it is probable that few chapters have ever been written in more eloquent and telling support of the surgical treatment of this class of ailments than the portion of this short work devoted to treatment. —*Medical and Surgical Reporter.*

Treatment of Infantile Hydrocele.

In looking over the records of this institution, I found that one thousand one hundred and fifty-seven cases of infantile hydrocele have been treated here in the dispensary department. The treatment of this class of cases has varied at different times; but I notice that the change in treatment has been from the severe (*i. e.*, setons, iodine injections, drawing out through an incision and snipping off a bit of tunica vaginalis) to the mild, and the results are now as good as they have ever been.

We first prescribe: Tr. bellad., tr. iodinæ co. āā ℥ j. M. sig —Apply over hydrocele twice daily.

This is generally sufficient to relieve within a week or two, especially so if the infant is but a few weeks old.

If this fails to cause absorption after a fair trial, the fluid is drawn off by a hypodermic needle or a small trocar. It may be necessary to draw the fluid a second time, rarely a third; as the fluid does not show the tendency to accumulate in children as in adults. This last point is an important one, and should have much to do in changing the treatment generally employed by physicians.

The treatment given is applicable to all the forms of hydrocele, congenital, acquired, diffuse and encysted of the cord.—*Medical and Surgical Reporter.*

Syphilis.

Occasionally in treating syphilis where rapid progress of the disease, and destruction of tissue was urging on from heroic to more heroic doses of mercury and iodide of potassium, and the patient growing rapidly worse, I have called a halt, and dropped specific treatment altogether with benefit. In a recent case of syphilis of over a year's duration, a profuse syphilitic eruption covered the face and body, and ulceration of the soft palate was taking place. Mercury was given without benefit, iodide potassium was added, the ulceration increasing when large doses of the iodide were given alone. The ulceration still spreading and presenting a sluggish appearance, applications of sol. nit. silver were used without producing any change. The patient was finally placed upon mur. tinc. iron with chlorate potash, and in three days marked improvement was noticed. The ulcers threw off their sluggish coating and little granulations commenced to appear.

Relying as we must in the treatment of the syphilides, upon constitutional remedies, do we not neglect the local treatment too much. In treating diphtheria we make application to the throat, not that we expect to cure the disease by these applications, but we know that as long as the membrane remains we have a nidus from which fresh germs are supplied to the general system, and in treating syphilis we take great care to keep the mucous patches cured up by local as well as constitutional means for the same reason; and yet in syphilides some of them of a destructive or annoying nature, we pay but little attention to local measures. Take for instance a papular syphilide. Does it always disappear *pari passu* with the disease? May the papules not be a reservoir as a mucous patch for autoinfection, or at least may not the hyperplastic tissue, at least remain as an unsightly remainder long after the disease has been cured? Some years ago a gentlemen called on me with a sore on the penis. I suggested a chancre. He said it was impossible for he had had syphilis four years before. The body was examined and sure enough there was an old papular syphilide. I told him that it presented the appearance of a chancre but that it was chancroid. Local treatment was used and the sore in the course of six weeks healed, but in less than three months his body was covered with fresh papular syphilide of such a roseate hue that at first I thought he had an attack of measles. He went through the regular stages and was, I hoped, cured. I commenced with the constitutional, then local treatment; determined that, should he be attacked again, no eruption should prove to my successor what the old had proven to me—misleading. And the misleading would be damaging in another sense: suppose he had not had this last sore, and had presented himself to a physician for some trouble, the eruption

found would have led to a treatment for what the second sore proved he had not —syphilis.—*Kansas City Medical Index.*

Collapse Following Strapping of the Testicles.

Strapping of the testicles after the evacuation of hydrocele fluids is a procedure which is frequently employed, but which from a case recorded by Dr. J. SMYTH, in the *Indian Medical Gazette*, is not entirely free from risk.

Dr. Smyth relates the case of a young man in whom the testicle was lightly strapped and supported after evacuation of the hydrocele. The next day the patient continued well, and as the strapping caused no discomfort, the operation was repeated on the right side, which was strapped like the left. The next morning the patient was found in a state of collapse, able to speak only in whispers; he was very pale and bathed in cold sweat, which stood out in great beads on his face and saturated his bedding. The extremities were cold, and the patient complained of numbness of the arms. He pointed to the hypogastric region as the seat of his distress, but did not complain of pain elsewhere. The pulse was small, frequent and intermittent. The strappings were removed, stimulants given with immediate relief of the symptoms. —*Therapeutic Gazette.*

DISEASES OF THE SKIN.

Subungual Keratosis.

DR. H. VON HEBRA gives the record of an unusual case in a late number of *Monatschefte für Praktische Dermatologie.* In the case reported all the finger and toe nails were attacked. The trouble consisted of a gray or greenish-black mass, varying in thickness from one to five mm. (.04 to .20 in.) and lying between the nail and underlying connective tissue. By using a pointed instrument this mass can be taken out as a scaly substance. If permitted to go on untreated it extends under the nail towards its proximal edge and induces a certain amount of deformity. It consists of a thickening of the epidermis with an increase of the horny layer. In the case recorded, the surface of the nails remained normal, no fissures putting in an appearance. The growth of the nail also proceeded in a normal manner, so far as quantity was concerned. A curious fact in connection with this was that no cause could be found to account for the condition, the author concluding to call the trouble idiopathic. The treatment consisted in producing local anæsthesia and then destroying the hyperplastic tissue by means of Paquelin's thermo-cautery. One or two sittings were held weekly, and, at the end of eighteen sittings all the diseased portions had been removed and the nails once more grew in a normal manner. In about six weeks the nails had grown up to the tips of the fingers without any diseased condition manifesting itself. One year after this the condition remained normal. The disease produced a considerable amount of deformity and, furthermore, prevented the patient from pursuing his vocation as clerk, on account of the pain attending upon using his fingers.—*St. Louis Med. and Surgical Journal.*

Sawdust Dressings for Wounds.

DR. L. S. PILCHER, uses and recommends sawdust as a material which combines all the desiderata for a wound dressing and is always available. It forms a comfortable cushion for the parts, is absorbent, does not cake and

favors the desiccation of the discharge. Made into pads it is easy to handle, and is susceptible of complete purification. If fresh, it is naturally surgically pure, and could be applied at once to the wound. If it is to be preserved for any length of time it can be treated with a solution of sublimate and dried before using.—*Quarterly Bulletin.*

Treatment of Alopecia Areata.

SCACHMANN has found the treatment of this disease with blisters to be the most efficient, and reports: *Ann. de Derm. et de Syph.* twenty-nine cases treated by him in this way. The duration of his treatment was never more than three months, and generally less than two. In no case was the blisters followed by erysipelas or other complications. His mode of employing blistering was as follows: A blister as large as the denuded area is applied upon the patch and left on until the bullæ form, then removed, and the blister dressed. When the skin is dry, usually on the third day, a new blister is applied, and so on up to three, six, or even ten blisters. The remainder of the head is rubbed morning and night with oil of turpentine 20 parts, ammonia water 5 parts, and water 100 parts. If there is but one moderate sized patch or a few small ones, blisters are applied to all simultaneously. But if the patch is very large, or when the whole scalp is affected, the head is divided into districts, and these are attacked successively. The hair is shaved about the patches.—*Ibid.*

Impetigo Herpetiformis.

In the *Vierteljahresschrift für Derm. und Syph.*, Kaposi makes an earnest plea for the independence of the impetigo herpetiformis of Hebra, and protests against its being made only a variety of Duhring's dermatitis herpetiformis. The latter is described as marked by erythema and vesiculation, occurring as often in men as in women, and relapsing very frequently. By Duhring the name is made to cover herpes iris et circinatus, pemphigus circinatus et pruriginosus, and impetigo herpetiformis. Kaposi emphasizes the fact that the name impetigo herpetiformis expresses exactly the characteristics of the disease—namely, *pustules* (that is, efflorescences filled with pus) that appear in groups, which spread peripherally while undergoing involution at the centre, just like the group of herpes. Only pustules seated upon an inflammatory base appear in the disease. As vesicles are absent, the name "impetigo circinata et iris" might be more fitting. The disease is accompanied with chills and fever, has a predilection for the genito-crural region, the mammæ, and the mucous membranes, and ends fatally either in the first outbreak or in the relapse. It occurs in pregnant women or in the puerperal state in the vast majority of cases. Only one man has been reported with the disease. Kaposi is inclined to think that it is caused by some pyæmic process, though he is unable to prove it.—*Ibid.*

Mechanical Treatment of Skin Diseases.

In the treatment of acne vulgaris, rosacea, sycosis in its chronic form, trichophytosis barbæ with nodular lesions, and lupus erythematosus, Rosenthal (*Vrtljsschr. f. Derm. u. Syph.*) recommends multiple scarifications followed by massage. The scarifications should be made in all directions, and with a small, fine, sharp, scalpel. He prefers this to any multiple-bladed instrument. After the bleeding following the scarifications has ceased, he strokes the part in a centripetal direction for

five or ten minutes, using one or two fingers or a piece of dry lint. Then the part is to be washed and left uncovered. He thinks that he has produced better results with this method than with the parallel incisions commonly employed alone.—*Ibid.*

Psoriasis.

℞. Potassii et antimonii tartratis gr. j ; ferri iodidi, quiniæ sulphatis, āā gr. xx ; aloini, gr. iv ; ft. pil. xx. M. Sig. One pill three times daily. Also—℞. Lanolini, ʒ iij ; olei cadini, ʒ iij ; olei anthemidis, gtt. v ; m. ft. ungt. Sig. Apply night and morning.

DISEASES OF THE EYE AND EAR.

New Treatment for Retinal Detachment.

If let alone, detachment of the retina (which consists of the formation of serum between the retina and choroid, separating the former from the latter) will inevitably and permanently spoil the eye. Up to a recent date the only treatment recommended for this condition was surgical in character, and consisted in evacuating, in some way, the sub-retinal fluid. This was accomplished either by puncturing the retinal sac through the vitreous humor and allowing the fluid to diffuse through the vitreous cavity and be absorbed gradually ; or by puncturing the sclerotic at a point corresponding to the location of the detaching fluid and allowing the latter to escape externally. The result of the surgical treatment, while temporarily good, has in the end, in many cases at least, not been at all satisfactory since the fluid, as a rule, re-accumulated and fully re-established the morbid condition. More recently a purely medical treatment has been suggested and used in this condition, viz : The administration, either by mouth or by hypodermic injection, of pilocarpine in doses as large as the patient can bear without experiencing excessive nausea, he being kept, in the meantime, quiet and as far as possible in the recumbent position. Of course, the object sought for in this treatment is absorption of the sub-retinal fluid by the excitation of profuse perspiration from the skin and mucous membranes. The results, as remarked, have been very satisfactory in the numerous cases thus far published, but it remains to be seen whether the effects will be permanent or not. While I sincerely hope they will be, I greatly fear that the treatment will not be lastingly curative. A little time will settle the question.—*St. Louis Med. and Sur. Jour.*

The Latest Phases of Cataract Extraction.

Until very recently the method generally in use for the extraction of cataract consisted of combining with the extraction, an excision of a portion of the iris or iridectomy. Owing to this combination, the operation otherwise known as "Graefe's modified linear extraction," is frequently called the "combined extraction," in contradistinction to the operation as performed without iredectomy, the so-called "simple extraction." Since the introduction of cocaine this latter operation has been revived and is now quite extensively practiced, particularly in Paris. The primary object, of course, is to get a round pupil, and at the same time avoid mutilating the iris. The steps of the simple operation are exactly the same as in combined extraction, except that the section should be made a little larger, as the unexcised iris takes up part of the space of the section. After the capsule is divided, the lens is forcibly pressed out over the iris and often carries it out before it. The prolapsed iris frequently returns to its proper place spontaneously or may be replaced

by a blunt instrument. All loose lens substance is carefully worked out by means of pressure upon the cornea. Then the anterior chamber is washed out (in order to sterilize the parts) by injecting with a small syringe a few drops of antiseptic solution of the biniodide or bichloride of mercury (about 1 in 20,000) into the anterior chamber causing the fluid to wash over, clean and at the same time disinfect the entire extent of the section.

In order to hold the iris in place and prevent its possible prolapse, eserine in solution is dropped upon the inside of the lower lid, the eye is tied up with antiseptic dressing and is not disturbed for a period of from two to five days. After that the atropine solution is used every time the eye is dressed. Strict antiseptic measures are employed preparatory to the operation. These consist, first, in washing the lids, particularly the edges, with soap and water and then with the antiseptic solution, flooding at the same time the entire conjunctival sac with it. Then the hands of the operator and assistants, together with all the instruments used, are washed in the sterilizing fluid. Such are the latest innovations in cataract extraction, and they become possible only by the use of cocaine. The general results are reported to be about the same as those obtained from the combined operation. The latter is much the simpler and easier ; and before I abandon it I will have to have a better reason than I have yet seen.—*Ibid.*

Cataract Produced by Sounds or Noises.

STEIN (*Ctrbl. f. Prakt. Augenh.*) has been experimenting upon guinea pigs with a view to the production of opacities in the lens by the repetition of sudden and continuous sounds. The eyes were previously examined carefully, and then the animals were placed in a box on which an electrical tuning-fork was fastened. Here they were kept for a few days without the fork being caused to sound. The first experiment was made on a guinea pig, two days old, with a tuning-fork D, with 100 vibrations. At first the animal was unruly and cried. After three or four hours the pupil became widely dilated, and after twelve hours there was seen a stellate figure on the posterior surface of the lens, near the equator, which in the next twenty-four hours gradually extended through the lens. Then the opacity began to fade slowly, and finally disappeared entirely in four or five days. The second experiment was made on an animal three days old, and with a fork of 250 vibrations. After twenty-four hours a stellate opacity appeared on the anterior surface of the lens, and two days later a similar one on the posterior surface. These disappeared subsequently, as in the first case. The third experiment was on an animal five weeks old, with a fork of 100 vibrations. In forty-eight hours dense triangular opacities appeared at the equator which disappeared in a week. The eyes, on being enucleated, showed an anterior stellate cataract, or a posterior stellate cataract, or a posterior cortical cataract, or a combination of all three forms.

A Simple Method of Operation for Divergent Squint.

Readjustment of the insertion of the internal rectus is now a recognized surgical procedure. It is therefore important that the operation should not only be effectual, but easy of performance and as simple as possible. Since its introduction it has undergone various modifications and is still a very tedious

procedure, necessitating the use of an anæsthetic, during the administration of which the patient not infrequently vomits, and matters are thus greatly complicated. The introduction of cocaine has to some extent lessened these inconveniences, but has scarcely enabled us to dispense with the use of an anæsthetic in operations involving the deeper structures.

Mr. RICHARD WILLIAMS (*British Medical Journal*) recommends the following method as one which will in most cases not require the use of an anæsthetic, and in which the time of the operation may be greatly shortened :

An incision is made in the conjunctiva and subconjuctival tissue over the tendon of the internal rectus, extending from near the margin of the cornea for about half an inch towards the inner canthus. The edges of this incision being separated, the strabismus hook is inserted under the tendon in the usual way, and then confided to an assistant. A curved needle armed with a suitable silk thread is then inserted in the conjunctiva near the margin of the cornea, and carried between the sclerotic and the conjunctiva towards the muscle behind the hook. It is then passed through the tendon from edge to edge at right angles to the course of its fibres, and brought out at the opposite side of the conjunctival wound. The edge of the conjunctiva at this side of the incision is now raised with a pair of forceps, the needle is insinuated between it and the sclerotic, and brought out near the margin of the cornea at a point corresponding to the point of entrance. It will be seen that the tendon and conjunctiva are included in a single loop. At this juncture the external rectus may be divided or not, according to the requirements of each individual case. This point having been disposed of, the tendon of the internal rectus is divided at a safe distance from the ligature, and the hook is removed, By now tying the two ends of the loop together, the margin of the cornea is brought into apposition with the cut end of the tendon, and the eye is brought into a position of more or less internal squint. Finally, the edges of the conjunctival incision are brought together by means of a fine suture.

The advantages claimed for this operation are : 1. That it is much shorter and simpler than the usual method ; 2. That by passing the ligature in the manner described a very firm hold is obtained both of the tendon and the conjunctiva, which is sometimes apt to tear ; 3. That no anæsthetic is generally required. The objection which naturally suggests itself is that there is a certain amount of tendency to puckering of the end of the tendon where the loop is tied. It would appear, however, this objection is more theoretical than real ; at any rate, Mr. Williams has not found that it jeopardized the success of the operation in any of his cases. Moreover, it can to a large extent be avoided by placing the points of entrance and exit of the ligature at a considerable distance from each other.—*Therapeutic Gazette.*

Scopoline in Corneal Ulcers.

DR. DUNN, writing to the *British Medical Journal* concerning scopoline, declares that in troublesome corneal ulcers, rheumatic iritis and severe interstitial keratitis that failed to show signs of improvement under either eserine or atropine, rapidly improved with this new remedy. E.

Eye Lotion.

℞. Natr. biborat., grs. xx ; morph. sulph., gr. i ; aq. rosæ, ℥ ij. M. Sig. Eye lotion.

FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

Retroflexed Splints for Fractures of the Forearm.

DR. W. D. KEARNS, in an article published in the *Journal of the American Medical Association*, said: No bone of the human skeleton (except, perhaps, the clavicle), is so frequently the seat of fracture as the radius, and no fracture has, perhaps, received greater practical study than that of the lower end of the radius, known as "Colles' fracture."

Complete reduction of the fracture is absolutely required, whatever form of splint may be applied; but the disastrous impairment of the functions of flexion, extension, pronation and supination, the anchylosis due to the inflammatory processes along the sheaths of the muscular tendons, ligaments and fasciæ; these mischievous structures must, if possible, be averted, and this insufficiency of the straight splint, however deeply padded, to secure the necessary angles of flexion of the wrist, and the metacarpo-phalangeal articulations, suggested the congruity of the flexed splint—a splint less complicated than a thickly padded straight splint, inasmuch as a comfortable condition, and proper relaxation of all the tendons and fasciæ of the forearm and hand, are at once permanently secured.

Whether, then, the fracture of the radius be transverse, oblique, more or less longitudinal, or more or less comminuted, the conditions governing the form of the retaining splints are, after complete reduction, alike exacting, and may be, it is maintained, best subserved by "retroflexed splints," which seem greatly effective in preventing the formidable impairment of the functions of flexion, extension, pronation and supination, such attained relaxation obviating the inflammatory adventitious processes in the sheaths of the muscular tendons, ligaments and fasciæ, whilst the bony structure is progressing, through the analogous process of provisional callus, to ossification.

The essential principles maintained in the treatment, not only of Colles' fracture, but in that of all fractures of the radius and ulna, may be generalized as consisting, after careful, complete reduction, in the maintained complete relaxation of the muscular tendons of the arm, forearm and hand, of the fasciæ and ligaments of both superficial and deep flexors of the anterior brachial region, of the pronators, and of the superficial and deep extensors of the radial region, to their tendinous insertions, even of the short and seemingly unimportant muscles and fasciæ of the palmar surface of the thumb; the early, free use of the thumb adding greatly to the early use of the hand. The continued maintenance of this relaxation is of paramount importance in connection with the immobilizing of the wrist, the proximal point. These essentials are the great recommendations of the "retroflexed splint."

Gray's "Anatomy" furnishes a plain, practical illustration of the muscles engaged in the displacement of the fragments in Colles' fracture, disclosing the acting causes of the biceps, the pronators, and supinator longus, where it is seen the upper fragment is under control of the biceps, lifting the upper fragment further from the ulna, the pronator-radii-teres drawing the upper fragment inward, the pronator quadratus drawing the lower fragment inward, near to the ulna, the supinator longus, contracting, lifts up the styloid process of the radius, pressing down upon the ulna the lower fragment. How readily is the displacing power of these muscles intercepted through the ordinary mode of the flexion of the forearm on the arm, a simple bend

at the elbow ; a like bend at the wrist will yield like good.

When both bones of the forearm are broken—as when but one—the use of thin, narrow, interosseous pads will exercise a controlling force upon the displacing influences of the pronator quadratus and the supinator longus. The continued, strained abduction of the hand on Nélaton's "pistol-shaped" splint, if abduction is sufficiently prolonged to produce any tangible effect, presents and exercises an unnatural and uncomfortable condition.

Again, splints, to be effective, should immobilize the proximal point ; hence, short splints, or even a short palmar splint, and a long, straight dorsal splint, are alike inadequate, for, says Miller (Principles of Surgery), "in fractures of the radius, for instance, unless the wrist be completely commanded, pronation, inevitably causing displacement, ill-adapted callus, and a weak as well as unseemly limb, will certainly occur." A short splint, extending a little above and a little below the fracture only, says Dr. Potts, is not only an absurdity, but a mischievous absurdity. The necessity of the greater width of the splint than the encased limb, to obviate consequent depression and displacement of the fragments by the retaining bandage, is a familiar safeguard.

The dressing of the fracture is very quickly done, and no removal of the splints is required for the satisfactory examination of the arm. Both splints being thickly inlaid with absorbent cotton, having three strips of adhesive plaster at hand, an inch or two in breadth, placing the inside splint along the arm, grasping the hand of the fractured arm with the surgeon's right hand, sufficient traction is made, whilst the left hand retains the inner splint, and feels the fragments in proper apposition —the outer splint is applied, and clasping both splints firmly, a strip of adhesive plaster encircles the splints at the wrist firmly, another at their upper extremity, and another around the hand part of the splints. In case of fracture of both bones, an interosseous pad should be invariably applied, and can be placed and held *in situ* by the same original grasp. These adhesive strips hold firmly the splints, when the retaining bandage may be leisurely applied.

It may be noticed that the hand-end of the splints admits of slight drooping of the hand, the simple curve of uncontrolled muscular action. It will be observed, also, that the angle of retroflexion of the dorsal splint is studiously sharp at the wrist, an angle of about 122°, applying the pressure from the splints only to and upon the extremities of the radius and ulna, carefully avoiding any and all pressure upon the carpal bones. This angle should be of degree sufficient to secure complete relaxation of all the posterior muscular tendons above mentioned by the backward bend of the hand ; whilst the partial closing of the hand secures the necessary relaxation of the anterior tendons and fasciæ. The palmar splint continues on over the muscular prominence of the three flexors of the palmar surface of the thumb, preserving their full unconstraint, whence it dips backward, spreading over the palmar surface of the partially closed hand.

While we have invariably, for many years, applied a bandage to every fractured limb previous to the application of the splint, yet would this careful custom, from recent teachings, seem more honored in the breach than in the observance ; for, says Dr. John H. Packard, in the fourth volume of Ashhurst's "International Encyclopædia of Surgery :" In former times a custom of applying what was known as an "im-

mediate bandage" to a fractured limb, in order, as was supposed, to prevent muscular contraction. This custom has now been generally abandoned, although it is still followed by some practitioners; it can never do any good, and may do much harm. Yet, with profound respect to this authoritative source and consideration, an "immediate bandage," loosely and intelligently applied, may do some good in controlling muscular action, and preserving the contour and integrity of the relative anatomical cast and condition of all within its envelopment—a tegumentary supplement. In fractures of both bones it were best omitted.

The retroflexed splints, then, give a ready, comfortable and effective maintenance of all appreciable, required muscular relaxation of the extensors and flexors, traversing in their tendinous sheaths beneath the anterior and posterior annular ligaments to their ultimate insertion along the phalanges, and relaxation of the muscles and fasciæ of the hand and thumb, and, lastly, may they justly claim an eminent preferment in securing the early, free, and full use of the hand.

Periarticular Fractures.

In the Société de Chirurgie, not long since, M. TRÉLAT stated that he thought his colleagues had perhaps gone a little too far in opposing immobilization in the treatment of periarticular fractures. Each fracture, in fact, possesses a number of indications, and no treatment addressed solely to one of these can help but be imperfect. In regard to fracture of the patella, Richelot was correct in insisting upon the importance of the muscular atrophy which takes place, but Tilanus was wrong in recommending massage as the sole treatment

It seems as if surgeons were falling into the same error regarding the fibula. It is true that massage can render some service, but none the less it ought not to make us lose sight of the fracture. Immobilization is good, but should not be prolonged beyond certain limits, as was done by surgeons at the beginning of this century. For, in trying to do too well, one is liable to have stiff joints, and thus for the fibula the apparatus should be left in position four weeks and not six.—*Mich. Medical Review.*

Compound Fracture of the Skull.

DR. J. H. WILSON, of Beaver, Pa., in the *Weekly Medical Review*, reports the case of a boy nine years of age who had a compound, comminuted, depressed fracture of the skull, from the kick of a horse. Elevation of the depressed fragment caused profuse arterial hemorrhage from the lacerated middle meningial artery. The bone was replaced and the opening filled with absorbent cotton; this was removed at the end of four days and the wound allowed to heal by granulation. Recovery was uninterrupted and complete. There were no bad results and the boy is as bright today as ever.

Minor Amputations at the Chambers Street Hospital.

DR. P. E. TIEMANN, in an article published in the *N. Y. Medical Journal*, recently, reports sixty-six cases of amputation of the finger. Under the subject of treatment, the doctor says: The cases were almost invariably seen a short time after the receipt of the injury. At first sight it would seem as if the prospects for antisepsis and primary union were far from favorable, the injured part being generally much crushed, with paint, machine-grease, printer's ink, or dirt so ground and rubbed into the skin or

lacerated tissues that it usually was impossible to thoroughly cleanse them; still, the first step was the attempt to do so with the nail-brush and soap and water, and afterward with a solution of bichloride of mercury, 1 to 1,000.

If the amputation was to be that of a phalanx, or of a metacarpal bone near the metacarpo-phalangeal articulation, cocaine was generally used as an anæsthetic; if the injury was nearer the wrist, ether was employed, inasmuch as in the latter case the hand was usually so lacerated that cocaine, in quantities sufficient to produce the requisite anæsthesia, was deemed unsafe.

If cocaine was chosen, it was injected into the skin, rather than beneath it, with an ordinary hypodermic syringe, the needle being previously cleaned with sol. acid. carbolic., 1 to 40. The injections were usually four in number, about five minims of a four-per-cent. solution in each, encircling the part one eighth to one-quarter of an inch above the level of the amputation, fifteen to twenty-five minims of the solution in all being sufficient to produce complete anæsthesia. After sensibility to pain had been removed, a small Esmarch bandage was applied around the wrist, with a couple of turns around the hand and the root of the finger, if the latter was the seat of operation, thus indefinitely prolonging the anæsthesia, as described by Corning and others. If more than one finger required amputation, injections of the minimum quantity that would produce anæsthesia were made in each, and the circulation in each was arrested by the bandage, as before; ether was generally used in triple or quadruple amputations of the phalanges, however, on account of the necessarily large quantity of cocaine to be used; still, in one instance (not recorded here) four fingers were removed under cocaine without pain and without marked constitutional symptoms.

In fact, in reference to cocaine it may be said that during the past year it had been very freely used here and so far only one instance of its dangerous effects has been noted—a case of temporary syncope in a patient who was sitting up watching an operation on himself—an accident that might easily happen without the aid of the drug.

The amputations, with but two or three exceptions, were performed with flaps; but, in accordance with the wishes of the patient, as much of the part was preserved as would insure a useful stump, and thus the classical disarticulation with palmar flap, the cicatrix well out of harm's way on the dorsal surface, was rarely seen, no more bone being removed than was absolutely necessary, and all available skin being utilized for flaps, whether lateral, anteroposterior, palmar, dorsal, or circular, lateral flaps being preferred. When necessary, the phalanx was cut with a forceps, unless unusually dense and thick; the metacarpal bone was either cut with the forceps or sawed through, according to its size. Though the forceps crushes the bone slightly, it is rare for caries or necrosis to follow its use, and even these may be due to the primary injury.

After the Esmarch's bandage has been removed, the active hemorrhage was controlled by ligating the digital arteries with catgut; the ends of nerves and tendons were trimmed off, a catgut or horse-hair drain was placed between flap and the end of the bone, and the wound closed with catgut sutures. Solution of bichloride of mercury, 1 to 1,000, was used to irrigate the wound; the instruments were kept in a 1-to-40 solution of carbolic acid.

The dressing consisted of iodoform

next to the skin, either in the form of powder, ointment, or gauze, preferably the latter, covered by several thicknesses of bichloride gauze, either already prepared, or made extemporaneously by wringing a roll of absorbent gauze out of a 1-to-1,000 solution. Over these was placed a layer of absorbent cotton, the whole hand generally being included in the dressing for the first week.

Iodized Starch as an Antiseptic.

ENGLAND describes his preparation and use of this substance as follows, in the *American Journal of Pharmacy:*

Apropos of the subject of antiseptics, the author was led some months ago to advocate the use of iodized starch as an addition to our rapidly growing list of these compounds. Reasoning that the antiseptic activity of iodoform and bismuth subiodide must depend, in part or wholly, upon the iodine freed in their docomposition, in contact with decomposing putrescent organic matter, it was thought that if an iodized compound, readily decomposable, was subjected to the same conditions, that it would induce the same healthful process in the latter case as well as in the former. Full experience has demonstrated the value of the theory in this instance, and iodized starch is now used daily in our hospital practice, and recognized as a valuable adjunct in certain forms of antiseptic treatment. It is applied in the same manner as other antiseptics, namely: first, washing out the wound with pure water and drying out as far as practicable; then thoroughly dusting in with iodized starch and covering the wound, even beyond it outer edges. The applications are generally made in the morning and evening.

On the removal of the dressings the absorption of the iodine is most strikingly shown. Whereas, in the central parts of the wound, where the exuding pus or matter has come in contact with the bluish-black powder, the same has become wholly decolorized, and shows the white color of the starch, yet around the outer limits of the dressing, where no excretive matter has exuded, the bluish-black color remains unaffected.

Comparative trials with iodoform, subiodide of bismuth, and iodized starch have demonstrated that the latter possesses valuable antiseptic qualities as a dressing; and though it may not be superior to the first named, yet, at the same time it has occasionally succeeded where they have given unsatisfactory results.

In its preparation the pharmacopeial method, given under "Amylum Iodatum," has been followed, namely, the trituration of five parts of iodine with a small quantity of distilled water, and the gradual addition of ninety-five parts of powdered starch, until the compound has assumed a uniform bluish-black color; then dry at a temperature not exceeding 40° C. (104° F.), powder, and bottle or box.—*American Practitioner and News.*

Treatment of Stricture of the Rectum.

Treatment of stricture of the rectum is so little understood that anything definite is always acceptable. Dr. E. A. Hoadley, Professor of Anatomy in the Chicago College of Physicians and Surgeons, in the December number of the Chicago *Medical Journal and Examiner*, reports a number of cases giving a detailed account of treatment in each case malignant and non-malignant; in each of these he practiced division of the stricture and of the sphincters with great benefit to the subjects.

In examinations of malignant strictures the surgeon must carefully guard against any laceration of the tissue of

the tumor. The sphincter must be cut as well as the stricture, as simple division of the stricture with the sphincter undivided will result unfavorably. After the division is effected the wound should be dressed with gauze thoroughly saturated with iodoform, or if there be a tendency to hemorrhage it may be packed with gauze in which a little persulphate of iron has been sprinkled. The rectum should, of course, be thoroughly cleansed before beginning the operation, which may be performed either under local anæsthesia by injection of cocaine, or under a general anæsthetic.

From a study of the cases the following principles may be deduced, which are in accord with the teachings of the best surgeons of the day :

1. It is dangerous to practice divulsion of malignant stricture of the rectum.

2. Division of a severe stricture of the rectum without dividing the sphincters is of little practical value.

3. Division of malignant strictures, with the sphincter, gives great relief and tends to prolong life.

4. Division of severe non-malignant stricture, with the sphincters, gives great relief and tends to perfect cure.

5. Division of strictures, whether malignant or not, and of the sphincters, is attended with little danger to life. All severe strictures should be treated by complete division, the cut including all the tissues below and back, as far as the tip of the coccyx. This operation affords, in cases of malignant stricture, the greatest possible measure of relief, and in non-malignant stricture the best means of permanent cure at our command.

In all cases care must be taken to ascertain the presence of a syphilitic taint, for if such exist it should, as in all cases requiring operative procedures, receive appropriate treatment both before and after division.

Process for Lanolin.

Lanolin, obtained from the alkaline water washings of wool, is a fatty body consisting of varying proportions of cholesterin and fat acids, with which is incorporated a certain percentage of water, which, becoming quickly absorbed, forms a smooth, white, homogeneous, unctuous mass. GAWALOVSKI proposes a new method for its preparation, as follows:

The wool washings are first passed through a fine sieve to free them from mechanical impurities, and then through a convenient quantity of cut straw or sawdust; the solution is then treated with magnesium sulphate, and the resulting magnesium soap, containing also the cholesterin, is collected, well washed with water, then drained and allowed to dry by exposure to air. It is then treated with sufficient diluted hydrochloric acid to decompose the soap ; a large excess of hydrochloric acid should be avoided, but sufficient added until a slight excess of acid is indicated, which is afterwards removed in the process. The resulting fatty scum, consisting of fatty acids and cholesterin, is drained and treated with petroleum benzine in a closed vessel, slightly warmed to about 85° F. to aid solution, and filtered through flannel in a closed filter press. The petroleum benzine is then driven off by evaporation or distillation, and to remove any remaining traces of hydrochloric acid the residue is treated with from one-tenth to one-fourth per cent. of carbonate of magnesium, rubbed up with water, the mixture being then well washed with fresh portions of water until the water washings are no longer

milky from the presence of magnesium carbonate. It is again melted, filtered while hot, through flannel, and when cold, water is incorporated and the lanolin becomes white, hard and smooth.—*Western Druggist.—Ther. Gazette.*

Suppurative Inflammation of the Antrum.

Dr. E. Fletcher Ingals, in an article of which the following is a summary, says:

The mucous membrane lining the antrum of Highmore is liable to suppurative inflammation and a collection of pus which may partially or completely fill the cavity, if its opening into the middle meatus of the nasal cavity remains patent; but when the latter becomes closed by inflammation and swelling of the Schneiderian membrane, the pressure caused by the continued formation of pus may cause great expansion of the bony walls, and corresponding increase in the size of the cavity. This condition has been termed abscess of the antrum, but as, excepting the presence of pus, it is usually devoid of all the characteristics of an abscess of the soft tissues, the term suppurative inflammation is more appropriate.

The normal opening from this cavity into the middle meatus varies from the size of a crow-quill to an opening nearly large enough to admit the tip of the little finger; in the latter condition the products of inflammation may be readily discharged, and a spontaneous cure may result without suppuration, but when the orifice is small, it may readily become closed and then the pent up secretions become purulent and offensive. In the earlier part of the affection the patient is liable to experience a sense of weight in the part, or to suffer from more or less tenderness and pain in the teeth, cheek, orbit or frontal sinuses, but in some instances none of these symptoms are present, and in chronic cases they are often absent, doubtless on account of the secretions having found free exit into the nasal cavity, as the swelling of the acute inflammation subsided.

The formation of pus is usually indicated by an increase of the pain, which becomes of a throbbing character, and these symptoms are often attended by rigors alternating with flashes of heat. Together with these symptoms an unusual discharge is usually present from the naris of the corresponding side, which may be either blown from the nostril or drawn back into the throat. This discharge is most abundant early in the morning, or at any time after the patient has been long in a recumbent posture, but it usually occurs also at irregular intervals during the day.

In chronic cases the discharge is purulent and generally exceedingly offensive—much of the annoyance which the patient experiences being due to the offensive odor and taste of the pus which trickles into the throat during sleep.

Persistant discharge from one nostril only, is usually due either to a foreign body, or to the disease under consideration, but nasal polypi, suppurative inflammation of the ethmoidal or frontal sinuses and polypi, or malignant growths of the antrum, may cause similar symptoms.

Where pain in the region of the antrum and an offensive purulent discharge from the naris of the corresponding side are present, there can be little doubt about the diagnosis, but in all cases careful inspection of the mouth and a critical rhinoscopic examination must be made. Upon examining the naris a collection of pus will often be seen in the middle meatus, and a streak of pus may be seen running down across the

middle portion of the middle turbinated body. If this is wiped away it is apt to return in a few minutes. But in cases in which secretion takes place slowly, the patient may need to keep the head erect for many hours, and then lie down with the diseased side uppermost before the discharge will return.

In many cases the inferior turbinated body is much swollen, so that it is at first difficult to thoroughly inspect the parts, but by the application of a small amount of cocaine the turgescence will be reduced, and then with the aid of a rhinoscopic speculum, reflector, and good light, foreign bodies or polypi may be readily detected or excluded from the problem of diagnosis. This done, there remains but one affection with which disease of the antrum is liable to be confounded, viz. : suppurative inflammation of the ethmoidal cells. Between these affections the diagnosis is sometimes exceedingly difficult, but in disease of the ethmoidal cells there is usually much less pain than in disease of the antrum ; the discharge from the nose is less abundant, and on inspection the pus is found to trickle down at the posterior end of the inferior turbinated body instead of across its middle. It will be remembered, however, that in some cases of disease of the antrum there is little or no pain, and that in others there is little or no discharge. In cases of this variety the most important points in the diagnosis of suppurative inflammation of the antrum are :

1. If there is no discharge there is likely to be much pain from the pent up secretions.

2. Disease about the roots of the teeth is apt to be present ; and

3. The history will often point to the origin of the disease.

In a case with only moderate discharge and no pain, or history of an acute attack, the absence of diseased teeth and the position of the pus far back in the nasal cavity, would point to disease of the ethmoid cells instead of the cavity of the antrum.

Polypi, or malignant growths of the antrum, can only be detected when they have protruded, or when the cavity has been opened.

The progress of the disease is usually slow, unless appropriate treatment be adopted. When the opening into the naris is completely closed the patient suffers severe and exhausting pain, the pent up secretions cause gradual distension of the walls of the cavity, which may encroach upon the orbit, nasal cavity or palate, or which may cause marked bulging and deformity of the cheek. If left to itself the cavity may open in any of these directions. In some instances the putrid secretions that are swallowed cause serious derangement of the digestive organs and a gradual decline in health.

In acute inflammation of the antrum medical treatment by fomentations, local blood letting, and salines, is important, but when suppuration has taken place surgical measures must be adopted. Free exit must be given to the pus, preferably through the alveolar process. When a diseased tooth is found to be the cause, it should be extracted and the opening left by its fang enlarged sufficiently to allow free drainage. Sometimes the abscess points just above the teeth at the alveolar process, and then may be opened in that position, but this is not a favorable point for the opening on account of the difficulty of keeping it patent.

If the teeth are sound it is best to draw the first molar, as its sockets are deeper than those of others, and it is the most liable to decay ; but if the

patient has already lost one of the upper bicuspids or molars the antrum may be entered through the space left. It has been objected to selecting this spot that the bone where a tooth has been lost sometime previously is much harder than elsewhere, but this offers no serious impediment to the operation, therefore it seems unwise to sacrifice a tooth.

The opening may be made with a common trochar, but a bone drill answers the purpose better. The drill may be worked by a dental engine, but this is unnecessary, as with a conical burr bone drill the opening is easily made by hand in three or four minutes. Care should be taken to hold the drill so that as it enters the cavity it may not plunge suddenly through and wound the opposite wall. The opening should be drilled on a line with the internal canthus of the eye upon the same side, which insures striking the central position of the antrum, providing it is of normal shape. Occasionally the antrum varies much from the typical size and shape, and in a few instances bony septa have been found traversing it. In cases of this kind it is necessary to scrape out the partitions sufficiently to allow thorough cleansing.

It is best to make a comparatively large opening, about a quarter of an inch in diameter, in order that it may be easily kept free, and that drainage and washing may be perfect. During the treatment the opening should be filled with a roll of cotton or gauze to prevent the entrance of food and to delay healing until the lining of the cavity has become healthy, or it may be kept patent by a small metallic tube which a dentist may fasten to an ordinary plate, and which may be closed while the patient is eating, by a small cork. After the operation the subsequent treatment of the case consists of washing out the cavity with antiseptic and astringent solutions. I have used with greatest satisfaction a spray or small injection of per-oxide of hydrogen, three or four times a week, and a wash of listerine ʒ ss—ʒ i. to ℥ i. of saturated solution of boric acid twice a day. This wash should always be used luke-warm.

If there is no necrosis of bone the case may be expected to recover in from two to six weeks, though occasionally a tendency to renewed inflammation may make it expedient to keep the opening much longer.

I have seen six cases of this disease.

Treatment of Severe Burns by Continuous Baths.

Dr. W. J. Lawrie, of Ayr, calls attention in the *Edinburgh Med. Journal*, to the treatment of burns by Hebra's water-bed. The bed is simply a form of bath, well suited to hospital practice, from its simplicity and efficiency, while the patient requires at the hands of nurses scarcely any attention. It is not cases of burning only that may be treated in this way—all diseases associated with loss of epidermis, viz., sloughing ulcers, erysipelas, pemphigus foliaceus, etc., which are associated with severe pain, supply excellent examples. The entire absence of pain and apprehension on the part of the patient, associated with the removal of old dressings and application of fresh ones, is a marked and favorable element in treatment by the bath. The wounded surfaces are continuously out of contact with the air, and as they are not covered with any form of dressing, the discharges escape at once into the water, and the wounds are kept clean. There is scarcely any limit to the time patients may remain in the bath ; in more than one case they have been continuously submerged for

385 days and nights, only leaving the water for functional purposes.

In the Vienna General Hospital a separate ward is devoted to their use, and in the Royal Infirmary of Glasgow one has recently been established.

Hebra's water-bed consists of a zinc vessel, constructed in the framework of a bed. In the vessel an oblong iron frame is suspended by chains. The frame is so constructed that the portion where the patient's head is to lie may, by a hinge motion, be raised to an angle with the other part. The whole frame can be raised or lowered by means of toothed wheels. On the frame a thin mattress is laid; the patient rests on the mattress. When the zinc vessel has been filled with water, the bed, carrying the patient, is gradually sunk beneath the surface, taking care, of course, to keep the head out of water.

At first the patient feels the water too hot, upon which it must be cooled. Feelings of rigor now set in, and additional warm water must be added. After this he feels most comfortable—the pains have almost entirely disappeared.

The water-bed does not offer a remedy against the severe constitutional effects of all burns, nor against their fatal ending in all cases. Patients die of extensive burns under this treatment as under any other, but they die at least free from pain.

On the other hand, the continual bath is an effectual therapeutic agent and a real benefit for patients and attendants during the long period of suppuration. By the ordinary methods such patients cannot be kept in a state of perfect cleanliness, because the dressing of extensive burns requires much time. Lifting and turning, as well as separation of the adhering bandages, are most painful. All of these disadvantages cease on the use of the water-bed. The patient lies and moves as he wishes, sleeps, eats, and enjoys himself according to his tastes. The wounds are always covered, always clean, and granulate normally, indeed often so luxuriantly that they must be repressed.

Hebra's water-bed is the best agent against pain, and the best therapeutic agent. Removal of scabs takes place earlier. Retention of pus is avoided Danger of septicæmia and erysipelas is reduced, fever ceases, sleep and appetite return.—*Med. and Surg. Reporter.*

Necessity of Examining the Mouth Before Giving an Anæsthetic.

It may seem superfluous to repeat a caution which is contained in every text-book on minor surgery, but one is apt at times to grow a little careless, and to forget small details when the mind is occupied with anxious thoughts. When an operator has so many assistants that one can give his undivided attention to the administration of the anæsthetic, as should always be the case where possible, any omission of such details is, of course, inexcusable. But it often happens, in cases of emergency, that the assistant must not only give the anæsthetic, but also assist the operator in many other ways. He is then liable to forget the possibility that something may be in the mouth, which is not unlikely, when anæsthesia is complete, to become loosened and fall back into the air-passages. It may be, that the patient has a false tooth, or several false teeth attached to a plate, or a plate obturator, or some other apparatus to supply a deficiency in some part of the jaw. Children are very apt to have marbles, lumps of sugar, pieces of cake or candy, or the like, which some fond relative has given them to help them to bear the approaching ordeal with greater courage. Any one of these objects is liable to be

drawn into the larynx when all the muscles are relaxed and reflex movements abolished, and when the patient is taking deep inspirations.

An accident of this nature is related by Dr. Trossart in a recent number of the *Lyon Médical.* The patient was observed to be vomiting almost continuously at the commencement of the anæsthesia, and afterwards, when the head was turned over, a plate, with four teeth attached, fell out of the mouth. The object in this case was so large, that it could not enter the larynx, but was drawn into the pharynx, and excited reflex efforts to vomit. Had it passed farther down, and become lodged in the œsophagus, the results might have been far from trivial.

Similar accidents have happened more than once, and a repetition of this caution would seem, therefore, to be worth the while. The cautious, and those who always have their wits about them, will pardon the repetition for the sake of their brethren with weaker memories. Always examine the mouth of every patient before commencing to administer an anæsthetic. A neglect of this apparently trifling detail may cost a life.—*Medical Record.*

Treatment of Wounds of Large Surgical Veins.

Dr. Edmund Souchon, of New Orleans, means (*New Orleans Medical and Surgical Journal*) the large veins upon which the surgeon may operate with some chance of success, such as the internal jugular, subclavian, axillary, femoral, popliteal, etc.

Almost all of above Veins.

1. When removing a tumor a vein is to be wounded, ligate it beforehand, if possible, with a double ligature. Before severing pedicle, ligate, or place ligature above and below it, and cut between.

2. When chloroform has been used, hemorrhage may not take place until the patient has recovered.

3. Spontaneous union of lips of wound may occur.

4. When large vein is wounded, apply the fingers to the wound at once to stop hemorrhage and prevent entrance of air ; then place two ligatures.

5. If impossible to ligate, compress, but if compression is ineffective, ligate corresponding artery of limb to stop bleeding.

6. Lateral ligation is unreliable, and should never be used, although some successful cases are recorded.

7. When vein is ligated, none of the tunics are divided, but internal surface is thrown into folds, which become adherent ; distal side of vessel presents a blood-clot, which becomes adherent to walls of vein.

8. Ligature of veins is ancient (Celsus) ; but Dr. Simson, of Scotland, first ligated internal jugular.

9. When coats of vessel are healthy and blood is normal, ligature is never starting point of pyæmia. But cases are recorded where in operating for aneurism the accompanying vein has been transfixed by the needle, ligature then applied and phlebitis followed.

10. Dangers from ligating large veins are œdema, dropsical effusions, gangrene, apoplexy, softening of brain, and secondary hemorrhage, about time of separation of thread. Average time for separation of ligature is thirteenth day.

11. Compress only when ligation is impossible. Digital compression should be used at once, to prevent introduction of air and stop hemorrhage. As a permanent measure, it has been successful twice, after 48 hours in one case, and 72 in the other.

Plug by antiseptic sponges. A small piece is introduced first, then larger

pieces. Remove them at expiration of 60 hours or three days, if loose, as wound of vein is then usually closed, or blocked by coagulum.

In mediate compression, edges of external wound having been approximated by few points of the interrupted suture, layers of iodoform gauze are to be piled upon it and retained by roller or adhesive strips. If opening in vein be small and not gaping, moderate pressure must be exercised, to afford light support to walls of the vessel and avoid obliteration of its cavity. When pressure required is great, compression is painful, and interferes with respiration and deglutition. Secondary hemorrhages are frequent enough. Instrumental compression, when applicable, is preferable.

12. In uncontrollable hemorrhage from internal jugular, subclavian, axillary and femoral veins, ligate corresponding artery to stop the bleeding. In case of jugular vein, this is useless, on account of circle of Willis. Ligate below largest collateral (*i. e.*, subscapular or deep femoral), lest gangrene follow from arterial ligation itself.

Internal Jugular Vein.

1. Causes of wounds of jugular are: extirpation of tumors; suicidal wounds; gunshot wounds; stabs; ligation of carotid artery.

2. Where from obliteration of vein there was no hemorrhage, a piece of vein has been removed with tumor.

3. Division of internal jugular vein in inferior third is more apt to permit introduction of air, because of adhesion there of walls of vein to fascia; hemorrhage is most copious from reflux bleeding from the cardiac end during natural expiration, sneezing, crying, coughing. Division of vein in upper third is less frequently followed by introduction of air; hemorrhage ensues from the distal end—little or no blood flowing from proximal end. Division near base of skull is followed by fatal hemorrhage—no recovery being reported.

4. Wounds of internal jugular in old people cause greater hemorrhage, because veins are larger.

5. Causes of death in wounds of internal jugular were: introduction of air, primary hemorrhage, pyæmia, etc.

Symptoms of introduction of air into veins are wheezing sound, syncope, tetanic spasms, and opisthotonos. Condition most favorable for introduction of air is canalization of vessel from inflammatory thickening of its walls, preventing collapse when divided. When vein is imbedded or firmly attached to a tumor, the accident has usually followed division of pedicle; to prevent this, ligature should be applied to pedicle before severing it.

After introduction of air, death occurred almost instantaneously in two or three cases; in another, in $3\frac{1}{2}$ hours; and in a fourth, after the lapse of seven days.

Gunshot wound of internal jugular is apt to be followed by secondary hemorrhage, pyæmia, and death. Secondary hemorrhage in gunshot wounds occurred on the 4th, 8th, 10th and 15th day.

6. Mortality of cases not subjected to treatment is 100 per cent. from primary hemorrhage, introduction of air, pyæmia, and secondary hemorrhage (internal jugular).

7. Secondary hemorrhage followed in 12.2 per cent., of which 80 per cent. were fatal from use of lateral ligature.

8. Mortality after ligature of 40 cases is but 10 per cent. (internal jugular). Mortality of cases treated by compression is 12.5 per cent.

9. On account of collateral circulation through lateral sinuses mainly,

ligation of internal jugular is not attended with serious results as regards the brain.

10. Deaths following ligation have been due to secondary hemorrhage about the time of separation of thread.

11. When carotid artery is wounded at same time as vein, case may recover, but with the formation of an arterio-venous aneurism.

Subclavian, Axillary, Femoral and Popliteal Veins.

1. To prevent gangrene of limb following ligature of large vein of that limb, ligate corresponding artery, thereby diminishing the supply blood to the limb; but ligate below largest collateral subscapular and circumflex or deep femoral. The artery should be ligated only when limb begins to show threatening symptoms, *i. e.*, becomes swollen and blue.

2. Do not ligate artery when a tumor has been pressing upon main vein so as to develop collateral circulation. This applies particularly to subclavian and femoral veins; it does not apply so well to axillary vein, because tumor of the axillary will grow from the vein for a while, and will only compress it when very large.

3. Collateral venous circulation of upper extremity is more developed than that of the lower; for this reason the ligation of the artery is not so often called for.

4. When subclavian vein is ligated, prognosis is worse than when axillary vein is ligated in axilla, because cephalic vein and its branch to subclavian are shut off.

5. When axillary vein is ligated above subscapular vein, prognosis is worse for same reason.

6. If femoral vein is ligated above internal saphenous opening, prognosis is worse, as this is a collateral branch.

7. When popliteal vein is ligated above opening of external saphenous, prognosis is worse for same reason.

8. When, during operation, numerous smaller collateral veins have been divided, prognosis is less favorable.

9. If, after amputating varicose limb, venous hemorrhage resists elevation of stump and compression of stump, ligate the femoral artery below deep femoral.

Abortive Treatment of Furuncles.

Dr. Louis Heitzman, of New York, writes as follows: After it was shown some years ago, that micro-organisms are the actual causes of furuncles, it is rather surprising that parasiticides have not long ago been used in the local treatment of boils. It is well known that among the numerous parasiticides, salicylic acid often does excellent service in diseases of the skin, but in furuncles it has, to my knowledge, never been used. I therefore tried to abort furuncles with salicylic acid, plaster or salve, and the result was really surprising, for it acted beautifully. The first case in which it was used was that of a young man, who, for three weeks previously had suffered from a large number of boils of different sizes at the back of the neck. In spite of numerous incisions, new nodules appeared as soon as others were cured. The man suffered such pains that he was unable to sleep, and he could not turn his head in the slightest degree without most severe pains. When I saw him first, he had about one dozen larger and smaller elevated, indurated, inflammatory nodules on the left side of the back of the neck. I prescribed locally an eight per cent. salicylic-acid plaster: ℞. Acid. salicyl., ʒ ij; empl. saponat, ℥ ij; empl. diachyl., ℥ j.

When I again saw him, three days later, the pains had disappeared, he

could move his head in every direction, and only a few superficial nodules remained; in three days more he was cured. I had opportunity to test the action of salicylic acid in furuncles several times, and almost every time with the best success. If applied early enough, it never took longer than six or eight days to cure furuncles of even a large size and of long duration, and the relief to the patient was manifested in a very short time. It is immaterial whether the salicylic acid is used as a salve or in the form of a plaster, the effect is always the same, and a five to ten per cent. salicylic acid salve is of the same service. I used the officinal unguentum aquæ rosæ as the basis for salves, not only because it has an agreeable smell, but because it is harmless; and this cannot always be said of vaseline, which is sometimes not free from sulphuric acid. A pleasant way to use the salicylic acid is in the form of the ten per cent. mull, which was first introduced by Unna; it is used in the same way as the plaster, and causes a superficial formation of blisters, or a sloughing of the skin.

I have noticed that, if applied too late, no core will be formed, but merely an accumulation of pus, which can be treated as a common abscess. If necrosis of the tissue is once present, salicylic acid also will have no more effect, and the best thing then is to open the boil with the knife, and hasten the cure by application of the salicylic acid salve. This treatment of furuncles is very simple, and is, I think, to be preferred to an injection.

In conclusion, a few words about the general history of furunculosis and about the so-called furunculous diathesis. It cannot be denied that a badly nourished person or one weakened by disease offers, on account of the great irritability of the skin, a more favorable soil to the staphylococcus than a healthy individual, and an improvement of the general health, as far as it is in our power, is certainly indicated. The local treatment, however, is by all means more important in furunculosis than the general, since it gives immediate relief to the patient. I know of cases where a furunculosis, which had lasted for weeks and months, was cured by the local application of a one per cent. salicylic acid salve. Special care must be taken that the salicylic acid is equally divided throughout the salve, and all the patient has to do is to apply it every morning and evening in a thin layer.—*Medical Record.*

Palpation of Lymphatic Glands.

At the instance of Penzoldt, DIETRICH investigated the number and size of the lymph glands that were normally palpable in four hundred and thirty-nine healthy soldiers and pupils. In this examination were included the glands of the occipital cervical (cervical and supra-clavicular), axillary, cubital and inguinal regions. He found that nearly all healthy persons have some region or other in which the lymph glands are normally palpable, and that the most common region is the inguinal, in which they are found in 92.9 per cent.; next they are most frequently found in the cubital region (82.6 per cent.); then in the neck (79.4 per cent.); and least frequently in the occipital region (2.2 per cent.). As to the average number of palpable glands, it is greatest where the most lymph glands lie, that is to say, in the inguinal region; then follow in decreasing ratio the neck, axillary, cubital and occipital regions. Children have a higher percentage of palpable lymph glands than adults. The average number of glands decreases in general with

advancing age; this is most strikingly seen in the neck. The average size in different regions of the body is about the same at all ages, namely that of a lentil or bean. In fifty persons with florid secondary syphilis, the percentage of the whole number of palpable lymph glands as compared with the healthy, showed an increase in the average number and in the average volume of the glands, and this increase was especially marked in the cervical and inguinal glands. On the other hand, a general glandular swelling was not constantly found in syphilitics, though the cubital glands in number and in size were more marked than in the healthy. In sixty-nine adult patients with diphtheria an average increase in the swelling of the cervical glands was established, though this was wanting in children (perhaps accidently ; the submaxillary glands were not considered). General glandular swelling in diphtheria at least, is by no means regularly present.—*Cent. f. d. Med. Wiss.—Med. and Surg. Rep.*

VENEREAL DISEASES.

Treatment of Syphilis.

At a recent discussion at the Medical Society of London on a paper read by Mr. Milner, divergent opinions with regard to the treatment of syphilis were expressed, and some valuable and interesting remarks were made by Dr. Lauder Brunton and Dr. Althaus. The effect of mercury in controlling to some extent the secondary manifestations of syphilis is assumed to be due to its properties as a germicide, and the same convenient explanation is given of the undoubtedly beneficial action of iodide of potassium in the later stages. It was pointed out, however, that the effects of iodide of potassium or sodium, are due, not to the iodine, but to the salt, which is not a germicide. Further, it was remarked by several speakers that the action of the iodides, while prompt and certain in dissipating the local symptoms which are supposed to belong to the later stages of syphilis, is not permanent. It has, indeed, been generally recognized that the iodides of potassium and sodium are only indicated in the lesions which occur in various tissues from the action of the virus in the past. Dr. Brunton appeared disposed to allow that mercury might owe its effect in syphilis to its action as a germicide, and observed that whatever its influence on the diseased germ, it was detrimental to the tissues. Further, there was a very general expression of opinion that iodide of potassium, like mercury, was not a drug to be trifled with ; and the propriety of employing mercury, even in the later stages, found several supporters. Inunction as a method of treatment has become more systematic of late years, especially since pharmaceutical research has placed at our disposal more elegant and convenient preparations for the purpose.

Dr. Althaus spoke very highly of the oleate of mercury as a cleanly and readily-absorbed preparation, and the peculiar qualities of lanolin as a vehicle for the administration of drugs, and particularly mercury, by the skin, also elicited expressions of approval. For severe cases the intra-muscular injection of mercury in some form or another, as practised by Mr. J. Astley Bloxam at the Lock Hospital, is productive of good results, though patients are apt to resent the pain which accompanies its introduction. Each method of mercurial administration possesses certain advantages. A clear and well-defined classification of the indications for each method is still wanting, though Dr. Milner has filled the gap to some extent.—*Brit. Med. Jour.—Therapeutic Gazette.*

Santal Oil in Gonorrhœa.

DR. X. HAGER, in his supplement to the "Text-Book on Pharmaceutical Practice," Berlin, 1883, pp. 792–795, gives a series of tests regarding pure oil of sandal-wood.

The following comprises a summary of Letzel's experience with oil of sandal-wood in gonorrhœa:

1. At first the drug decreases considerably the gonorrhœal secretion, and changes its color from green to a milky hue. The pain consequent to urination and erection diminishes and disappears wholly in a couple of days. (Of forty-two patients treated with the oil thirty-seven were influenced in this manner, while in the seven others no influence upon the gonorrhœal process could be made out.)

2. If after ten to twelve days the medication with the oil is discontinued, the morbid symptoms reappear in an intensified manner.

3. The best results with the oil were obtained if it was not given before the third or fourth week, and if combined with weak astringent solutions (acetate or sulphocarbolate of zinc, resorcin). Three of such cases out of twenty-nine were cured in fourteen days without any injection; in twenty-one cases out of twenty-nine the secretion disappeared in eight to twelve days, the rest of the cure being accomplished with injections. The other eight cases were in indolent degraded persons, who took not the slightest dietetic or hygienic precautions.

4. In cystitis and gonorrhœal prostatitis the oil has always proven of great value. In nine cases the drug decreased the duration of the affection and lessened the severity of the symptoms.

5. In chronic gonorrhœa the drug produced in many cases a distinct improvement, though its value in this affection is far more inferior to the services it renders in acute gonorrhœa.

6. The oil is medicinally more active than oil of copaiba, though a great drawback, alongside of its high price, are the gastric and nephritic disturbances it is apt to create.

Treatment of Wounds of the Bladder.

DR. JOHN HOMANS (*Medical Record*), Surgeon to the Massachusetts General Hospital, Boston, Mass., writes:

As bearing on the subject of the suprapubic operation for stone, which is being revived at this time, I may say that I have twice cut open the bladder during an ovariotomy. The first time was in my seventy-second case (one of dermoid tumor). The incision in the bladder was carefully sewed up with a continuous suture of silk, and care taken not to include the mucous membrane in the stitch. The bladder was closed tight, and a Sims catheter was kept in the urethra. The catheter was removed on the tenth day. The temperature was never above 99°, and there have never been any vesical symptoms at that time nor since. The second time was in my two hundred and tenth case—one of double papillomatous ovaries, the patient having been tapped eighteen times in five years for the removal of ascitic fluid. The wound of the bladder was more extensive than in the first case, and required twelve interrupted sutures of silk, in which the peritoneal and muscular coats alone were included. A catheter was kept in the bladder seven days. After that time the urine passed naturally. In neither of these cases was the bladder drained through the abdominal wound. If the catheter in the urethra will drain the bladder, it would seem unnecessary to have another exit in the roof of the bladder.

FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

The Union of Intestinal Wounds.

DR. HAL C. WYMAN (*Medical Age*):

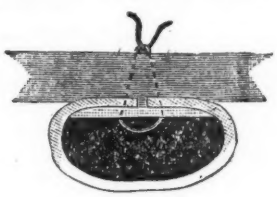
Glorei's Suture.—This suture is formed by passing the needle obliquely through

the sides of the wounds when held together by an assistant.

Loop Suture of Ledrau.—Having prepared as many ordinary sewing needles and threads as wished to make stitches, the edges of the wound well approximated, and each needle passed trans-

versely to the line of the wound, the threads on each side being tied together, the two bundles were collected together and twisted into one, so as to pucker up the edges of the wound.

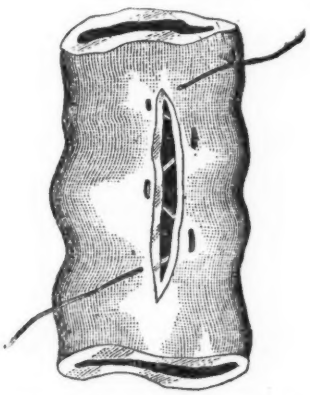
Loop Suture of Palfyn.—A ligature being passed through the middle of the



wound in the intestine so as to leave a loop on its inside, the ends were left out of the external wound, so as to draw the serous coat of the intestine up to the peritoneum lining of the abdomen, after which the abdominal wound was closed and the threads fastened upon the skin by adhesive strips.

Suture of Heyward.—A small, thin, and oiled piece of light wood, twelve to fifteen lines long, and four to six broad, being first introduced into the intestine at the wound with a piece of thread attached to it, each end of the thread was armed with a needle. After passing each needle from one side to the other, from the inside outward through the thickness of the intestine, and also of the abdominal parietes, the wooden plate was drawn upon so as to compress the peritoneal coat of the intestine against the serous lining of the abdomen, and close the wound hermetically. When the adhesions thus excited seemed to be sufficiently strong, that is, in about three days, the thread was withdrawn, and the little plate of wood left to be discharged by stool.

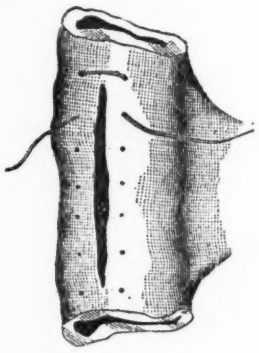
Suture of Gely.—After cleansing the edges of the wound this surgeon turned in the serous surface on each side with



the needle, and passed the threads tranversely through them, at sufficient distances to keep the serous membrane of each side in contact. Then the ends,

being knotted and tied as in the interrupted suture, were left to come away by stool, or they were twisted and brought out of the wound, as in the suture of Ledrau.

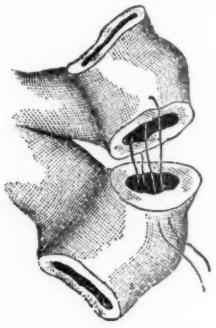
Bertrandi's Suture.—The lips of the wound being approximated, pierce them both rather obliquely about two lines from their edges, and one from their extremity. Then repassing the needle in the same way on the opposite side, two lines further on, continue them in the



same direction to the other end by a series of equal stitches. The intestines being reduced, fasten the end upon the abdomen, and three days subsequently cut off one and of the thread near the wound and draw out the other.

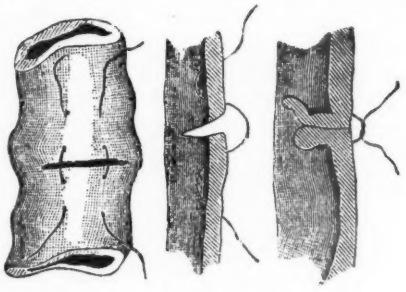
Suture of Longitudinal Wounds.—*Suture of Ramsdohr.*—Invagination of the two ends of the intestine being accomplished, this surgeon stitched them together by two or three points of the interrupted suture, reduced the intestine and left the suture to the efforts of nature. If the mesentary interfered with the invagination he excised it to a sufficient extent.

Suture of Jobert.—With a piece of silk passed at each end into a needle, Jobert operated as follows: After traversing the anterior part of the upper end from without inward with one needle he then passed both needles from within outward through the lower end of the intestine, and after placing as many threads in this manner as were sufficient to unite the wound, invaginated the intestine by gentle traction upon the



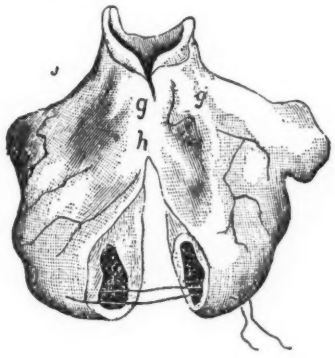
thread, and either knotted them on the outside of the inferior end, or brought them out of the wound and the abdomen.

Suture of Lembert.—After preparing as many threads, each armed with needles, as seemed requisite, one needle was pushed through the coats of the intestine as far as the mucous membrane from without inward and then repassed from within outward, so as to come out about one line from the edge of the wound. Then passing it across the fissure, he carried it from without inward at a similar distance from the opposite side of the wound and brought it out again



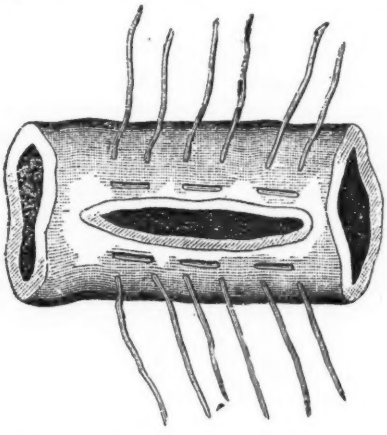
at a distance of about three lines from its point of entrance. All the threads being passed in a similar way, the serous surfaces were brought in contact, so as to force the lips of the wound to double

inward and form a sort of valve, after which the knots were tied, the ends cut off, and the intestine reduced.



The above cut represent the treatment of wounded intestine according to John Bell.

Emmet's Suture.—With threads each armed with two needles; as many of these loops as the size of the wound may require are placed, and the opposite



ends of the ligatures are tied together. Emmet claims that it obviates some of the objections to the methods of Lembert.

Conservative Surgery of the Hand.

Dr. Jno. H. McIntyre (*Medical and Surgical Journal*):

A——, aged 15, was taken to the office of Dr. E. A. Chancellor, of this city, with the flesh and bones of his hand lacerated and crushed in a frightful manner, having had it caught in the cogs of a power printing press. I was called in order to make an amputation of the hand at the wrist. Upon inspection, however, I concluded to try to save the thumb and little finger.

Fig. 1. Anterior view.

The principal features of the operation were the control of the excessive hemorrhage, the palmar arch being wounded, the use of the bone forceps and the transplantation of tissue to cover the wound. The portion removed consisted of the metacarpal bones, excepting their heads next the carpal bones. The wound was dressed with the ordinary antiseptic dressing.

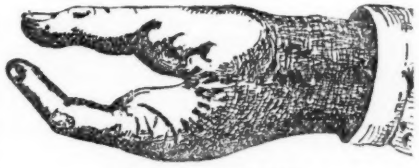


Fig. 2. Posterior view.

The results of the operation are shown in a highly satisfactory manner by these two cuts, engraved from photographs.

Nearly all the puckered tissues on the little finger were drawn from the back of the hand, enough being taken to allow for shrinkage. The wound healed kindly and all by first intention, with the exception of the apex of the wound in figure 2, at which point there was a slight exostosis of bone removed about fourteen days after the operation.

The chief point of interest is the useful member resulting in this case, as in

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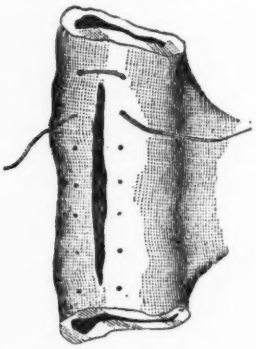

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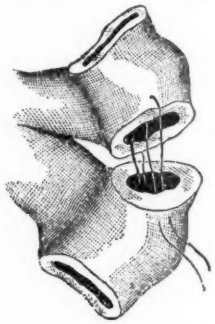

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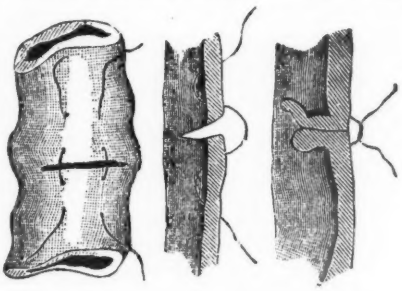

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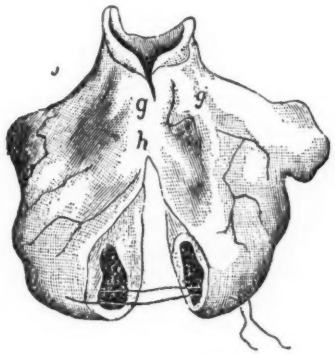

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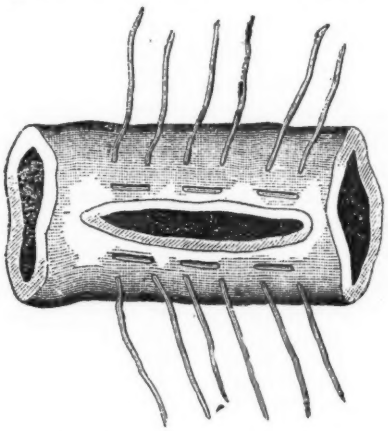

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The principal features of the operation were the control of the excessive hemorrhage, the palmar arch being wounded, the use of the bone forceps and the transplantation of tissue to cover the wound. The portion removed consisted of the metacarpal bones, excepting their heads next the carpal bones. The wound was dressed with the ordinary antiseptic dressing.

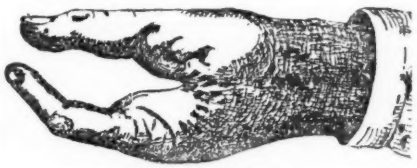


Fig. 2. Posterior view.

The results of the operation are shown in a highly satisfactory manner by these two cuts, engraved from photographs.

Nearly all the puckered tissues on the little finger were drawn from the back of the hand, enough being taken to allow for shrinkage. The wound healed kindly and all by first intention, with the exception of the apex of the wound in figure 2, at which point there was a slight exostosis of bone removed about fourteen days after the operation.

The chief point of interest is the useful member resulting in this case, as in

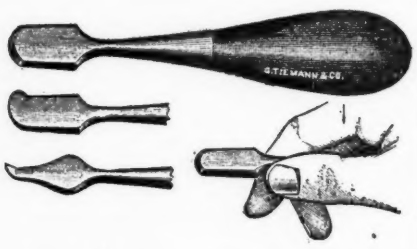
four previous ones, prehension being perfect.

The four other cases, three of which were caused with cog wheels, and one, a child of seven years, by a "forty-knife cutting box," were almost identical in result with the case illustrated.

A Novel Periosteal Elevator.

DR. W. W. VAN ARSDALE (*N. Y. Medical Journal*):

The accompanying sketch illustrates a new periosteal elevator for use in subperiosteal resection of bones. The advantages of the instrument lie chiefly in its simplicity. It is short, so that the fingers of the operator are brought into close proximity to the field of operation,



thereby rendering finer work possible, while the handle is no larger than to enable it to be conveniently and securely grasped with the entire hand. In this position the end of the handle rests against the root of the hand, facilitating the employment of considerable force in thrusting, while the flat shape of the handle permits of a very forcible lateral rotary prying motion (as is given to screw-drivers), not so readily attained with other models. The point of the instrument is shaped somewhat like a spade, an abrupt bevel at the end forming the dull cutting edge, which should not be sharp enough to lacerate the periosteum. Above the spade-like portion the shaft is slender, so as to permit the operator to place his thumb *laterally* upon it with its tip resting upon the shoulder of the blade. The thumb should not be placed on top of the blade, as with other elevators. At the point where the shaft enters the handle an obtuse angle is formed laterally by the bulging of the handle, and into this angle the flexed second joint of the middle finger fits snugly. The instrument is a so-called aseptic one, the hard-rubber handle having been vulcanized on to the metal while hot, and the whole being afterward finished in one piece. In this manner all crevices or rivet holes are avoided which might possibly give lodgment to septic germs.

Besides the straight elevator described, two other similar ones accompany each set, differing only in the shape of the blade. The one is slightly curved on the flat for the purpose of facilitating the first detachment of the periosteum after incision in cases where the soft parts covering the bone form a thick layer, and also for use in the latter stages of the periosteal detachment from the further aspect of the bone. The other presents a sharp point, also slightly curved, with lateral bevels for use in corners, etc. The set was made for me by Messrs. Tiemann & Co., of this city.

Removal of Necrosed Bone by Irrigations with Weak Hydrochloric Acid.

DR. EDMUND ANDREWS, Professor of Clinical Surgery in Chicago Medical College, gives the following account of this process in the *Kansas City Medical Record*, September, 1887:

In almost all cases of necrosis the dead bone can be removed without operation by the simple process of daily irrigation with diluted hydrochloric acid. This is especially important in spinal necrosis and caries; but it is also applicable to necrosis in other parts of the body.

Nearly all our authors are silent on this subject, for though Dupuytren and other older surgeons have spoken of brushing the cavity with strong sulphuric acid, they contemplate merely a caustic action to change the condition of the diseased living parts, and not the dissolving out of the sequestrum. Others, however, have proposed the solvent plan, but without gaining a serious hearing in surgical literature. Billroth, of Vienna, briefly alludes to the subject, but scouts the whole idea in the following strong, but ill considered language: Chemical solution of the sequestrum is not to be thought of. If you were daily to pour muriatic acid into the fistulous opening, it would affect the newly formed osseous tissue as much or more than it would the sequestrum, which would be very unfortunate, as it must replace the latter. Hence, the mechanical removal of the sequestrum is the only thing left.

In opposition to this high authority, I wish to state as the result of actual experiments that, by a little ingenuity in the management of the irrigation, most sequestra can be dissolved out; and if the solution be properly prepared it does not effect the living bone, nor act upon the soft parts, except as a good antiseptic; neither does it cause any pain. In fact, by the addition of cocaine and morphine, it can be made anodyne.

So far as my investigations have yet gone, I find no solvent equal to a weak solution of hydrochloric acid. Sulphuric acid seems to limit its own action by precipitating the insoluble calcium sulphate in the Haversian canals, and blocking the further access of the acid. Thin laminæ of bone will lie in a dilution of this acid for days with only a slight degree of decalcification. Chromic acid is also inefficient and stains the linen upon which it happens to drip. Nitric acid decalcifies the bone rapidly, but I have not yet finished the experiments for ascertaining its practical usefulness.

The proper strength of the hydrochloric solution will usually be found between one-fourth and one-sixteenth of the strength of the official *acidum hydrochloricum dilutum*, although it can be employed somewhat stronger by the addition of cocaine and morphine. The tolerance seems to be determined largely by the presence or absence of a good coat of granulations upon the living tissues. Directly after an operation, the cut extremities of the nerves are painful on the application of any acid, however weak; but after a few days, when covered by granulations, they bear comparatively strong solutions without difficulty.

The length of time required will vary with the strength of the solution, and the constancy of irrigation. As the result of experiments made outside the body it was found that old sequestra, which have laid long in putrid suppurating cavities, are not deprived of their gelatiniferous animal basis. In every instance the decalcified animal matter remained in full form, but lying inclosed in granulations inside the body, it is rapidly absorbed, exactly like the decalcified bone drainage-tubes when left in position.

The method of effecting the irrigation is important. If one simply pours a little acid into the fistula, as Billroth evidently understood the plan to be, he will accomplish nothing. It is necessary to irrigate the whole sequestrum either frequently or continuously. If possible, one should have two openings, so situated that the fluid may run into one, and thence along the whole length of the sequestrum and out at the other.

When necessary, new openings must be made in suitable positions, and left pervious by drainage tubes. The next step is to fill a half-gallon fountain syringe with the acid solution, and, hanging it by the bedside, to let it run very slowly through the diseased channel. If a "through and through" irrigation is not possible, we can often obtain the same result by taking a small flexible catheter, especially of the kind having a curve near the tip, and called by the French *sonde coudée*. By a little careful management this can often be carried to the farthest corner of the cavity, and by attaching it to the fountain syringe it will deliver the fluid beyond the sequestrum, and make it flow over it on its return outside the catheter. Whenever the sequestrum can be thoroughly irrigated, its decalcification is a matter of absolute certainty within a moderate number of days. The hydrochloric solution is a perfect antiseptic of itself, and during its use no other is required.

After the solution is completed there remains the gelatiniferous animal matter of the bone, which is identical with the materal of decalcified bone drainage-tubes, and like them is rapidly absorbed in antisepticized cavities. I have commenced to investigate the possibility of dissolving it out at once with pepsin, but have not finished that part of the subject.

Billroth raises the objection that the acid will dissolve the living bone as rapidly as the dead, or even more so. So plain a point as this of course cannot fail to rise in every one's mind, but I am sure that this great man spoke from mere theory, and not from observation or experience. Whatever one might fear in this respect, I find as a matter of experience that the weak solutions which I have used do not decalcify living bone. Apparently the granulations covering the osseous tissue protect it from contract with the acid, except in spots denuded by ulceration; and even there the circulation of alkaline blood in the Haversian canals, and the constant exudation of alkaline serum from all raw living surfaces, bone included, protect it from the action of such weak acid dilutions as I have hitherto used. At any rate, it is a positive fact that the sequestra are dissolved and the cavity heals, without any perceptible injury to the living bone.

Gunshot Wounds of the Abdomen.

Dr. William T. Briggs, of Ninth International Congress, said :

In 1885 the recorded operations for gunshot wounds of the intestine were only six in number, since that time thirty-eight had been recorded, with eleven recoveries. All cases should be reported, whether successful or not. Surgical interference in appropriate cases was now the course generally accepted. The condition and appearances of the external wound would give some indication as to the presence or absence of penetration. A single wound of the abdomen afforded a hope that penetration had not taken place, but it was only a hope. Even the presence of a wound of entrance and one of exit did not positively indicate injury of the viscera. If there was a continuous tract of tenderness extending some distance from the wound of entrance, it was fair to infer that there was no penetration. A large bullet-hole indicated penetration. When there was doubt, the wound of entrance should be enlarged. In this way the presence or absence of penetration could be determined, and, with the usual precautions, this did not increase the danger. In the diagnosis, not much value could be attached to the sub-

jective sensations. The unusually rapid appearance of tympanites in a region ordinarily dull would indicate an escape of gas into the abdominal cavity. Localized dullness in the region of the wound or in the dependent portion of the abdomen would indicate hemorrhage. The presence of blood in the urine indicated wound of the kidney, bladder, or ureter. Shock could not be relied upon, but, when it was present, the probability of such an injury was very great. The rare phenomenon of fæces in the wound was a positive sign of perforation. The presence of persistent nausea and vomiting also pointed to injury of the viscera. The absence of pulsation in one femoral vein indicated injury of the iliac vessel.

In laparotomy for gunshot injuries, the median incision was the better in the majority of cases. There were exceptional cases in which enlargement of the original wound would do. The continuous suture answered every purpose, and, as it could be inserted more rapidly than Lembert's, it was preferable. Silk was preferable to catgut for the sutures. Where resection was required, one of two methods of procedure might be adopted. Where the mesenteric border could not be saved, the section should be made through the healthy bowel and a triangular portion of the mesentery also removed. The two portions of the bowel were then to be brought together and secured with sutures, the first suture being introduced at the juncture of the mesentery and the intestine. In no case had the author found it necessary to use more than one row of sutures. All raw surfaces should be covered with peritonæum. The second method was applicable where the mesenteric border was not injured. In these cases the section did not involve the mesenteric border of the intestine. The injured portion alone was removed and the edges of the healthy bowel were brought together with the continuous suture. Where the omentum was injured, the hemorrhage was often severe, requiring the removal of a large portion of the structure. All slits and lacerations in the omentum should be closed with continued sutures. In cases of perforation of the stomach, there was no difficulty in closing the wound after it was found. Where there was no complication, wounds of the stomach usually healed satisfactorily. In gunshot wounds of the liver, the surfaces should be brought together with deep sutures. The same procedure could be employed in the case of the spleen, but where this organ was badly lacerated its removal was indicated. Perforating wounds of the kidney called for removal of the organ. Perforation of the liver, spleen, or kidneys, with a similar injury of the small intestine, greatly increased the gravity of the injury, and such cases would usually end fatally. Wounds of the bladder called for suture. Special stress was laid on the necessity of seeking out all wounded blood vessels, thus preventing the danger of primary or secondary hemorrhage. There should be a careful search made for all wounds of the intestine, the bowels being examined in a systematic manner. Tight sutures should be avoided, for they would lead to sloughing and extravasation. If the peritoneal surfaces were laid in contact and kept so for a few hours, adhesion would take place.—*Md. Medical Journal.*

Danger in Free Use of Galvano-Cautery on Hypertrophied Turbinated Bones.

The turbinated processes are often greatly hypertrophied, so much so that they permanently block up the nose and prevent easy breathing. This condi-

tion is very common; in fact it is the primary condition, which is strongly inclined to eventuate in permanent atrophy of the turbinated processes and the ultimate absorption of the turbinated bones. Hypertrophied turbinated bones can be easily diagnosed by simply inspecting the interior of the nose. The treatment must be surgical. The galvano-cautery is the means usually employed now to reduce the swellings, and it is certainly the proper thing to use. I wish to say, however, that its excessive use is dangerous. It must not be forgotten that great hypertrophy is likely to be followed by extreme atrophy, naturally. If the hypertrophied parts are imprudently burned away, the unfortunate and absolutely incurable condition of extreme atrophy will be at once brought about by improper treatment. Whatever be the caustic application resorted to, it should be carefully and guardedly made, so as to cauterize the swollen parts very superficially and not deeply through the entire masses. The object should be to cause only sufficient contraction to allow easy breathing through the nostrils. Considerable time should be allowed after each application so as to see what effect has been obtained. There is no doubt but that the turbinated processes and bones have been greatly abused these latter years. Before the galvano-cautery came into use for this purpose, I was in the habit of cauterizing the hypertrophied turbinated processes with pure chromic acid. This is a good remedy, but, like the galvano-cautery, it must be used cautiously. The object must be to cauterize sufficiently to permit easy breathing; but be especially careful to avoid actual destruction of the parts and thus produce at once that incurable condition of extreme atrophy.—*St. Louis Medical and Surgical Journal.*

Restoration of the Thumb.

Dr. Fr. Guermonprez, after calling to mind the great importance of the thumb, so great as to entitle it to the rank of a special organ, proposes to substitute for it, in case of its loss by injury, the index finger by a cheiroplastic operation. Landan, in recording the method followed, first makes mention of the operation of Huguier, which consists of the enlargement of the first interosseous space, to permit of the first metacarpal bone taking the place of the thumb. As an improvement on this method, in which the incision is made midway between the first and second metacarpal bones, the author suggests that it be made on one side of the space, so that the scar will be upon the back of the hand. Going beyond this procedure, the author proposes the operation above mentioned—the substitution of the index finger for the lost thumb. Owing to the want of a suitable case, he has never been able to perform it in practice, his experiments being confined to the cadaver. The operation is divided into six steps:

1. An incision through the skin and underlying soft parts of the second intermetacarpal space, from the web of the fingers obliquely over the dorsum of the hand to the stump of the thumb.

2. Opening of the metacarpo-phalangeal articulation of the index finger. Loosening, but carefully preserving the soft parts around the base of the index finger. The tendons of the extensors especially must remain intact.

3. Sawing through the metacarpal bone obliquely from below and within.

4. Sawing through the first phalanx of the index finger from below and without.

5. Approximation of the bones.

6. Approximation of the skin.

In the original paper of the author,

several cases are cited in detail, in which useful hands had been made by modifications of this method.

Charcoal and Camphor.

A mixture of equal parts of camphor and animal charcoal is recommended by Barbocci, for preventing the offensive odor and removing the pain of old excavated ulcers. The camphor acts as a disinfectant, the charcoal absorbs the offensive odors.—*British Medical Journal.*

The Treatment of Ingrowing Toe-Nail.

Almost all cases of this painful affection arise from wearing tight, narrow shoes, which compress the toes against each other, and elevate the lateral surfaces of one or more of them above the edges of the nails. More or less swelling results, and the sharp corners of the nails cut into the soft œdematous tissues, producing inflammation and ulceration, accompanied by a fetid discharge, intense pain, and the formation of exuberant granulations. The big toe is usually involved, but any or several of the others may be similarly affected. In severe cases the entire foot may become swollen and excessively painful.

The rational treatment of ingrowing toe-nail consists first in removing its cause. Take away the pressure from the toes, and allow them to lie flat and separate. This can be done either by cutting a piece out of the shoes usually worn, or by instructing the patient to wear a pair of slippers or shoes with broad toes.

The next part of the treatment is to reduce the inflammation and swelling of the tissues which project above the edges of the nail. In mild cases, rest, and elevation of the parts with the application of cold water, or of lead-water and laudanum, will be sufficient. In severer cases the following ointment will act like magic:—℞. Acidi carbolici, gr. v.; acidi tannici ʒ iss ; adipis, ℥ j. M. Ft. ungt. Sig.—Apply four times a day.

Under its use the pain vanishes at once, the granulations shrivel up, the inflammation and œdema subside and the toes regain their normal size and appearance. This gratifying result can be obtained in many cases even while the patient is pursuing his usual daily avocation. The only possible objection to this simple and efficacious method of treating ingrowing toe-nails is that it will lessen the opportunities of the ready and anxious surgeon to test the merits of the different varieties of knives and anæsthetics, but, inasmuch as serious accidents have occurred in the practice of experienced surgeons and their favorite anæsthetizers, the patient should be given a chance.—*Therapeutic Gazette.*

Covering Wounds With Plaster.

At an inquest held in the Southwark Coroner's Court, a point was brought out which is of some importance as bearing on the treatment of recent wounds. A schoolboy running out of the schoolgates fell and cut his forehead. The wound was strapped with plaster, and everything appears to have gone well for four days. Then shivering came on, and was followed by drowsiness deepening into insensibility, and death resulted two days later. After a post-mortem examination, it was decided that the fatal issue was due to blood poisoning brought on by neglecting to cleanse and dress the wound, the plaster never having been removed from the time of its application. In commenting on cases of this kind one naturally allows somewhat of the possible effects of shock occasioned by the primary injury, which, without amounting to any gross lesion, might yet

materially influence the final result. Be this as it may, however, enough has been shown in evidence to enable the coroner to assign to the death in question a more direct connection with the wound itself. The practice of plastering over recent cuts is very usual ; it is also one which in numerous instances has proved injurious. Apart from any question of blood poisoning, indeed, the mere tension of retained discharges is an inevitable source of mischief where this custom is adhered to. The simple rule in surgery which provides for the free escape of pus where such is likely to form is one of which we need not remind any qualified practitioner. Accidents due to neglect of this rule are chiefly liable to occur when a wound has been treated either by the injured person himself or by a practicing chemist. In such cases plaster is the first resource, and is apt to be used rather well than wisely.—*Lancet.*—*Therapeutic Gazette.*

VENEREAL DISEASES.

Resorcin in Acute Gonorrhœa.

LYCHOWSKI (*Vrtljschr. f. Derm. und Syph.*) reports six cases of acute gonorrhea cured within six days by injections of a two to three-per-cent solution of resorcin. The injected fluid must be worked by the fingers into the deeper parts of the urethra.—*N. Y. Med. Jour.*

The Pathology of Chronic Urethritis.

In the same journal, OBERLANDER and NEELSEN enthusiastically advocate the use of the endoscope with the electric light, as made by Leiter, of Vienna, after the suggestion of Nitze, in the study of diseases of the urethra. A lengthy description of the apparatus and manner of using it is given. It is by the help of this apparatus that the authors of this paper made their study; they also made numerous examinations of the urethra of dead bodies. In chronic urethritis the inflammation affects sometimes the glands of Tyson, sometimes the tissues surrounding them, and sometimes both glands and tissues. Besides these glands those of Cowper are also diseased, as well as the lacunæ of Morgagni. In the normal condition of the urethra neither the lacunæ nor the glands of Tyson are visible to the naked eye, but in chronic urethritis their mouths may be readily seen as points of various size and color upon the mucous membrane, arranged in groups of five to twenty or more. The contiguous part of the mucous membrane may be of a bright inflammatory red; they may appear cicatricial or hemorrhagic; or the gland openings may lie in red, swollen, soft, mucous membrane which covers them, with an easily bleeding or granulating surface; or they may be surrounded with a rigid infiltration so that they appear crater-like in the mucous membrane. On the other hand, the mucous membrane presents hardly any alteration, which indicates either that the inflammatory process is of slight intensity, or that the stage of complete cicatrization is near at hand. The grouping of the glands follows no particular rule. In some very mild, though chronic, catarrhs of the urethra the mucous membrane only is affected, and will appear with the endoscope as a zone of altered color.

Oberlander's division of urethritides is as follows: 1. Mucous catarrhs, of which he makes two varieties—urethritis mucosæ hypertrophica, and catarrhalis. 2. Glandular, infiltrative, inflammatory forms, the varieties being u. granulosa falciformis, u. glandularis — (*a*) u. glandularis circumscripta, (*b*) u. glandularis proliferans, (*c*) u. glandularis hypertrophica, (*d*) u. glandularis stringens—

and u. follicularis sicca and stringens. These are all treated of at too great length for us to do more than indicate them here. His *u. mucosæ hypertrophica* presents a mucous membrane which is reddened, deeply inflamed, swollen, dull-looking, and without blood vessels upon its surface. The inflammation is readily set up on slight provocation. His *u. m. catarrhalis* is drier; the mucous membrane is less swollen, and the natural folds are often visible. This form often passes over into the glandular, infiltrative, inflammatory form. *Urethritis granulosa falciformis* is that form of chronic urethritis in which the inflammation which causes the formation of stricture is located in the upper layers of the mucous membrane and to a certain extent about the glands. The mucous membrane is colored deep red, is dull, bleeds easily, preserves indications of its natural folds, and is dotted over with hyperthropic and sometimes hemorrhagically-colored glands. In the field of vision it seems a defined wall of dull bluish-red granulations, from 2 to 5 mm. long and generally occupying only half the circumference of the urethra. Its summit is yellowish or yellowish-red and evidently cicatricial. This form of stricture formation is very rare, and requires more than two years for its development. *U. glandularis* is that variety of chronic urethritis in which the inflammation affects particularly the glands, the mucous membrane being also implicated. It has four forms: (*a*) *u. g. circumscripta*, in which from eight to ten glands of Tyson lie in a somewhat raised, smooth mucous membrane. If the surrounding membrane is pale, the affected places seem red; if it is redder than normal and swollen, the places have a paler, more glassy look; if cicatrization is near, they appear as small, irregularly formed cicatricial spots lying beneath the epithelium, with the mouths of the glands forming small, blackish points scattered about between them. (*b*) *U. g. proliferans* has the same infiltrative character as the variety just preceding, only the infiltration is more even and spread out, in some cases half or more of the pendulous urethra being affected by the inflammation. The affected part is almost always bounded by a smaller zone resembling what is found in u. g. circumscripta. The mucous membrane is pale red, slightly granular, and sometimes swollen, with hypertrophic glands scattered about. The swelling is often at and behind the meatus, which makes the lips hard to touch and causes them to gap. The middle of the affected region is uneven and of a grayish-yellow color on account of an epithelial proliferation and desquamation. Here and there are bare places from the size of a pin point to that of a lentil, which are quite near together, through which the corium appears as blood-red spots. The rest of this middle zone is made up of smooth cicatricial tissues of a yellowish or grey-red colors. In course of time fine blood vessels developed upon this zone, and the normal lustre returns. Relapses of inflammation occur at times. This variety of urethritis may develop within three or six months after infection. (*c*) *U. g. hypertrophica* may follow the preceding form. It is characterized by a deep parenchymatous infiltration of the entire mucous membrane with its glands, causing a marked tumefaction of the part, and a narrowing of the lumen of the urethra. In the less pronounced cases the mucous membrane is of a pale rose color, and deficient in lustre. In some places there are fine granulations and glassy swellings, also disseminated eroded places where the epithelium is lost, with some

bleeding points, or only the red spots of the corium below. The mucous membrane is irregularly uneven, with groups of glands showing the raised parts, around which the parts are red and swollen. In some cases we see evidences of cicatrization, not infrequently in the form of well marked circular cicatrices about the single glands. Relapses are very frequent. This condition may appear six months after infection, and many years may elapse before the process ends in spontaneous cicatrization. The more pronounced form of this variety of urethritis is accompanied by a deep and thick infiltration of the mucosa, and not only that, but it also involves the adjacent parts of the corpus cavernosum. In the endoscopic examination of this variety the simple form is usually first encountered; then the lumen of the urethra becomes narrower, the mucous membrane appears thicker, and its longitudinal folds have disappeared. The urethra is changed into a stiff tube. Blood vessels are no longer visible, and the surface of the mucous membrane is covered with fine granulations. This zone of granulating membrane is pale reddish-yellow to mother-of-pearl in color; it has lost its lustre, no glands can be found in it, and it has lost its elasticity so much that it tears on the passage of the endoscopic tube, and bleeds more or less freely. It begins and ends gradually, shading off into the adjacent parts. Such a zone can be felt from without as a hard string in the urethra. The thickness of the cicatrix which follows it is in proportion to the depth of the infiltration, and it is in the form of a net. Relapses of inflammation are common. (*d*) *U. glandularis stringens* is the most intense stage of this form of inflammation, and leads inevitably to stricture. *U. follicularis sicca* is accompanied by closure of the mouth of the glands, and the formation of follicles. At first, when only a few glands are affected, they may be felt from without as a pin-head and millet-sized masses; with the endoscope they appear as pale, raised, lustreless spots, with a minute central depression. A more pronounced form shows more of these spots in groups, and subsequently a small areola of infiltration develops about the gland follicle, and the whole group has a surrounding zone of infiltration. This form usually affects the whole circumference of the urethra, and causes a decided narrowing of its lumen. The affected part is pale rose, brown, or grayish-rose in color, covered with a dirty grayish-brown, greasy substance; the mucous membrane is deficient in luster, though smooth, and generally without erosions; and there are no gland openings to be seen. *U. follicularis stringens* is marked by the formation of elevations and depressions of cicatricial tissue, with red spots and dilated anastomoses of blood vessels between them and one half or the whole of the circumference of the urethra is affected. This area is markedly dry, and offers a hindrance to the passage of the endoscope, though it does not bleed. Sometimes the stricture formed by this variety of urethritis is so tight that the endoscope cannot be made to enter it. It probably takes years to form.

Clinically, all these forms, excepting the first two, present the same features in regard to the secretion. The discharge of the mucous forms is gray, thin, creamy, becoming yellow and green on irritation. The other forms have a purulent secretion, at times becoming more profuse. The disappearance of the discharge indicates cicatrization of the part. Pain is usually absent. Interference with the stream of urine is in proportion to the strength of the muscles

of the bladder and the narrowing of the urethra.—*N. Y. Medical Journal.*

Preputial Dilatation.

DR. DE SAINT-GERMAIN, says:

The accidents which sometimes attend circumcision—serious hemorrhage, partial gangrene, and diphtheria of the wound—have led me to discard this operation or to reserve it for those cases (about one in every three hundred) in which dilatation is impracticable.

Dilatation, as advocated by Nélaton and practiced by many surgeons, consists in the insertion of a dilator in the orifice of the prepuce and the gradual enlargement of the opening. I prefer a dilator having two blades instead of the three blades of Nélaton.

This operation, which is completed by separating the adhesions with a grooved director and followed by daily massage, in which the gland is alternately covered and exposed, has given me the most satisfactory and durable results.

Ignipuncture of the tonsils may well take the place of tonsilotomy, an operation not free from the possibility of fatal accidents. The mere mention of uncontrollable hemorrhage and diphtheritic invasion of the wound makes it clear that the operation is not so free from danger as many suppose.

Krishaber has substituted cauterization, but his superficial application of the thermo-cautery prolongs the treatment indefinitely.

I operate with a modification of Smith's gag, thrusting the thermo-cautery in the shape of a pointed hook into each tonsil to the depth of three-eighths of an inch.

The application is repeated from two to four times at intervals of eight days, when the tonsils appear evacuated and shrivelled and present only small and unimportant stumps. I have met with no accidents and have had invariable success.

In view of the frequency of these two classes of cases and of the satisfactory results obtained without risk to the patient, ought we not to consider the substitution of preputial dilatation and ignipuncture of the tonsils in the place of circumcision and tonsilotomy, an appreciable surgical advance?

An Injection for Gonorrhœa.

The *Union Médicale* attributes the following formula to Barré: Tannic acid, 3 parts; solution of subacetate of lead, 6 parts; tincture of catechu, 12 parts; Sydendam's laudanum,* 3 parts; rose water, 100 parts; distilled water, 300 parts. To be used night and morning, each injection being retained for three minutes.—*N. Y. Medical Journal.*

Methods of Treatment of Prostatitis, with Especial Reference to Hypertrophy of the Prostate.

Among the different forms of prostatitis, Dr. FISCHER, of Munich (*Centralblatt für Chirurgie*, No. 3, 1887) distinguishes that of youth, in which the genitals are over-used (*i. e.*, misused) from that of older individuals. The first always appears as an acute affection, and at times violent in its onset, with high fever, rigors, and even sopor, until the abscess in the urethra bursts, either spontaneously or from attempts at catheterization. Its cyclical course lasts about eight days, and repeats itself after a time. Often for many years one attack follows another in the same way, and finally ends in a cure. Occasionally, however, it passes into a chronic inflammation, with hypertrophy. The more chronic form in older people begins

* Made by macerating 64 parts of opium 32 of saffron, 4 of cinnamon, and 4 of cloves, in 500 of Malaga wine, for fifteen days at a gentle heat, expressing and filtering

usually with catarrh of the gland, prostatorrhœa, and leads slowly to hypertrophy. According to Nussbaum, it is very characteristic of the affection that when the catheter cannot be used, the bladder may only be emptied when the body is placed in a peculiar position, and indeed the position of the body which renders this possible, does not remain the same, but must be changed from time to time to effect the same result. We pass over here the well known resulting conditions, and point out only the not infrequent occurrence of abscesses. During the treatment of prostatitis in its acute stage, after the regular course of treatment and along with the ordinary after treatment with iodine and bromine mineral waters, Nussbaum has used the cold ascending douche with great success; a treatment which, in chronic prostatitis and hypertrophy of the prostate, even in cases of long standing, is followed by the best results. Occasionally among the better class of patients, this treatment may be advantageously combined with brine and sea baths, either as full or sitz baths. He disapproves of all methods of treatment which have for their object the forcible dilatation of the narrowed portion of the urethra or the destruction of the gland, as well as all operations for extirpating the prostate through the rectum. Bottini's galvano-caustic treatment is, on the other hand, approved by Nussbaum, although the difficulties of the operation do not favor its employment. Notwithstanding the untoward results of parenchymatous iodine injections, Iverson's subcutaneous injections of ergotine are thought to deserve careful attention. It is not advised to make an opening of a prostatic abscess from the urethra because of the danger of making a false passage in catheterizing. The incision through the rectum or the perinæum deserves also the preference over puncture with a trocar. Maas's recommendation to divide the sphincter ani in severe cases, is worthy of attention because of the opportunity thus given of applying antiseptic washes.

When there is retention of urine in consequence of hypertrophy of the prostate and the various methods of catheterization have been tried without success, the author recommends, according to Nussbaum's method, the puncture above the symphisis pubis, with the subsequent introduction of a Nélaton's catheter, and with antiseptic washing out in preference to the puncture for aspiration, in which latter washing out is not possible—a very important procedure, and one which ought frequently to be done. According to the author's observations, he has often succeeded, directly after the first operation, in introducing the catheter through the urethra; when, after the cure of the cystitis and the removal of the resulting inflammatory products, the prostate rapidly decreases in size, and the fistulæ are also soon cured.—*Journal of Cutaneous and Genito-urinary Diseases.*

DISEASES OF THE SKIN.

Epidermal Hypertrophy of Old Age.—Keratosis Senilis.

Dr. George H. Rohé (*Maryland Medical Journal*):

In many elderly white persons of both sexes, small patches of thickened epithelium are found variously scattered upon the face, trunk and extremities. These plaques are usually in the shape of roundish or irregular, slightly elevated, brownish or blackish collections. Sometimes they are dry and hard or cornified, but oftener the patch is greasy to the touch, friable and easily scraped

off with the finger nail, leaving a moist and reddened, or slightly bleeding base.

When these epithelial patches are scraped or rubbed off, they rapidly reform, causing the individuals so affected much annoyance, and often uneasiness by their persistence.

Physicians generally regard this as a trifling ailment, and pay no attention to it, but careful observation will show that not rarely the constant epithelial hyperplasia results in an atypical formation, which eventuates in malignant ulceration—true epithelioma.

I have several times observed the gradual transformation of these simple epithelial hyperplasias into malignant new formations.

The treatment is generally simple. When there is as yet no infiltration, the patches should be softened with some indifferent ointment — cold cream or vaseline, and then washed with soap and water to remove all the epithelial accumulation. Soft soap or *spiritus saponis kalinus* may be needed for this purpose Afterward an ointment containing sulphur and salicylic acid may be applied nightly with success in most cases. The following makes a good application: ℞. Acidi salicylici, gr. x-xxx; sulph. præcip. ʒ ss; pulv. amyli, ℥ ss; ungt aq. ros., ℥ i. M. ft. ungt.

Dr. Hardaway informs me that he has had good results from the use of Beiersdorf's salicylated plaster-mull.

If, after six to eight weeks persistent use of this, the epithelial accumulation returns, the patch should be lightly cauterized with caustic potash solution, (1:2) or the thermo-cautery, following this with oxide of zinc ointment for a few days, when the use of the salicylated sulphur ointment is begun again.

If there is any infiltration, no temporizing is permissible. The patch must be thoroughly cauterized with the thermo-cautery, caustic potash, arsenious, nitric, or lactic acids. In some cases I have obtained good results from electrolysis.

Keloid.

Keloid is one of the affections of the skin which is more or less involved in obscurity. A distinction is to be made between true keloid (of Alibert), hypertrophic scar and cicatricial keloid. This is not always an easy matter and the difficulties surrounding it are sometimes so great that it is almost impossible to establish a difference.

Keloid is essentially a connective tissue new growth and manifests itself in the shape of an oblong plane, an elevated ridge or a cylindrical mass, processes being given off at the periphery, these prolongations giving the entire growth a somewhat fanciful resemblance to a crab. In color this growth is whitish or slightly reddened, it being somewhat lighter in negroes. The surface is smooth, very rarely hairy, and the epidermis is more or less tense, giving a shining appearance. The parts most likely to be the seat of this trouble are the trunk, more especially the region over the sternum, the back, nucha and face. The extremities are not often the site of this affection. In regard to subjective symptoms, it often happens that little or none are noticed, or they are not sufficiently marked to occasion any discomfort. In the majority of instances, however, there is itching which is sometimes severe; the keloidal growths are sensible on pressure and pain is present. This latter is at times so marked and severe as to make life a burden to the patient.

The disease develops from a few nodules, which first appear and finally coalesce, the resultant mass being sometimes as large as the palm of the hand. Their number is generally limited to one

or very few, although as many as thirty have been seen on one patient.

The causes of keloid are involved in obscurity, although it is supposed to be due to some irritation. False keloid is seen to appear after incisions for abscesses, after application of vesicants, leeches, etc., and after having the ears pierced. But, the fact remains that true keloid appears without any assignable cause and has been named, in consequence, idiopathic keloid by some authors. It is observed more often in females than in males and generally during early and middle adult life. It is very rare in infants and in the aged. It is, moreover, much more often seen in the negro race than in the white, the former seemingly having a predilection for this affection.

In regard to the pathology of keloid, it differs very little from that of fibroma and hypertrophic cicatrix. It consists of a "new formation of the dermatic framework," in other words it is a connective tissue new growth. In true keloid we find bundles of connective tissue, parallel to each other and the papillæ of the skin are intact. In hypertrophic scar, no papillæ exist and the connective tissue, whilst it is abundant, is loose and irregularly distributed. In cicatricial keloid we have an absence of papillæ occurring, but the parallel bundles of connective tissue are present.

To make a diagnosis between true keloid and hypertrophic cicatrix or cicatricial keloid is comparatively easy, as the history alone will almost suffice, there being a history of destruction of tissue or traumatism in the two latter. But it is quite a different matter to establish a differential diagnosis between the two latter and the aid of the microscope even will be often invoked in vain.

The treatment so far has been anything but successful. Excision even at a considerable distance beyond the lesion seems to prove entirely inefficient, as a recurrence invariably takes place. The same may be said of the various other plans which have been tried. Multiple puncture, scarifications, curretting have all been tried with the same want of success. Caustics seem to be as powerless as operative interference, and internal remedies exercise no influence whatever. It has latterly been claimed that electrolysis effectually destroys the growth. The number of cases in which this method has been used, is so small and the lapse of time, since the last application, so short, that no definite conclusion can as yet be formulated.

The tendency in this trouble is to recur and this is the result of the experience of observers. Keloid when it has once appeared lasts during the life of the individual. Still, in a very few, a spontaneous disappearance has taken place, but this action remains as much a mystery as the reason for the appearance of the disease. About all that can be done is to relieve pain when it becomes too severe and in other ways place the patient in as comfortable a way of passing life, as possible. Where the keloid disfigures by reason of being on an exposed part, the patient will have to be content to go through life unfreed of his deformity.—*St. Louis Med. & Surg. Jour.*

Treatment of Scabies.

FOURNIER advises: 1. A thorough soaping of the parts, followed by a full bath. 2. Frictions over the body with the following mixture: ℞. glycer., 2 parts; gum traga., 1-100 part; flowers sulphur, 1 part; carb. soda, ½ part. After this a second full bath must be taken. The linen of the patient and the bed linen must be carefully laundered, and gloves which have been used must be burned. —*Nouveaux Remèdes.*

FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

Disarticulation of the Right Half of the Lower Jaw for Enchondroma.

Dr. W. D. HAMILTON. (*N. Y. Medical Journal*):

Mrs. E. T., twenty-one years old; family is free from the taint of malignant disease. In November, 1883, a lump of the size of a large filbert appeared on the outer surface of the body of the jaw, midway between the angle and symphysis. A year later a dusky enlargement, enveloping the lower right third molar, was seen in the mouth. A dentist extracted the tooth, and the bulk of the growth has been attained within the

FIG. 1.

past year. Little pain was felt from first to last, and three profuse oral hemorrhages occurred. When the writer first saw her she was somewhat exsanguinated. From a point one inch above the right zygoma to within half an inch of the symphysis the face was enlarged. The right cheek and the front and side of the face were only moderately prominent.

Fig. 1 gives an inadequate idea of the extent of the disease. As the growth enlarged it went as far as possible in the direction of least resistance. It nearly filled the mouth, destroying the right floor, and lifting the roof. It then pushed backward toward the pharynx, so that the right tonsil seemed to be a part of it. The formidable feature of the disease was that which crowded up toward the base of the skull, above the zygoma, and backward into the neck.

Surgeons agree that these operations increase in gravity in proportion to the extent of involvement of the angle and ramus. It is hard to understand how any greater involvement of these parts would have permitted of the successful removal of the jaw.

The mouth was pushed toward the sound side, the right angle being slightly elevated. The closure of the lips required an evident effort. Examination of the oral cavity revealed an irregular mass extending beyond the median line. Most of the teeth on the right side were buried in the diseased jaw, and mastication had become difficult on account of the resistance which the enlarged articulation offered. She was continually annoyed by the foul secretion from a large ulcer in the mouth, caused by application of nitrate of silver. The diagnosis of enchondroma was made, and the operation for its removal performed at Mt. Carmel Hospital, May 10, 1887. The tongue was first transfixed with a ligature, and held by an assistant. The usual incision was made. The facial artery and vein were promptly divided and secured. Following the tumor closely, a careful dissection was made with blunt scissors, until, the cheek having been lifted, the mass was partially exposed. The cavity of the mouth was not entered until later. The bleeding points were ligated as soon as divided. An incisor having been extracted, the bone was easily cut in two with the saw.

Here began the difficult work of the operation, viz., the completion of the deep upper and posterior dissection, and the disarticulation. The external and internal carotid and internal maxillary arteries, Steno's duct, and the facial nerve were all in close proximity to it. Both the condyloid and coronoid processes were enlarged, particularly the latter, which had extended behind and above the zygoma, lifting it and making it more prominent. Bleeding was very free at every stage of the deep dissection. The division of the jaw allowed it to be lowered, rotated, and everted. Four of the vessels were so deeply situated that all attempts to tie them failed, and as many hæmostatic clamps were left *in situ* at the upper end of the wound. Catgut was employed for the smaller vessels, and about six silk ligatures were used on larger ones. The wound was closed with silk inside, and continuous gut sutures held the skin flaps in neat coaptation, save at the upper angle, where the clamps were dependent. A drain was left in for a few hours, at the lowest point, and absolute cleanliness was observed. A gauze dressing was adapted. Great shock followed the operation, and for a time it seemed doubtful whether the patient would react. The forceps were removed the next day, and a few stitches were introduced. There was but little fever. The silk ligatures excited some swelling and irritation, which ceased after they had come away. For a time sinuses persisted beneath the chin and in front of the ear; but these have entirely healed. The tendency to retraction and lateral displacement was obviated by persistent daily exercise. The lower jaw was locked outside of its opponent for minutes at a time.

She now has no trouble in masticating her food. The cheek is almost natural in appearance. A slight depression exists where the clamps were attached. The cicatrix is gradually becoming less distinct. The photograph from which Fig. 1 was drawn was taken a few days prior to the operation. The two others show the result ten weeks afterward. Fig. 2. indicates very fairly the contour of the face and the dimple-like end of the cicatrix. Fig. 3 shows the line of incision, which was so located that the carotid pulsations may now be seen beneath the vertical part of the scar. There is less distortion of the mouth than formerly. Little if any harm was done to the facial nerve or Steno's duct.

FIG. 2.

In fact, neither the nerve nor the parotid gland could be isolated and recognized. Eighteen artery forceps were constantly employed, and in the aggregate there was very little hemorrhage, although it is supposed that thirty vessels were tied. Many of them were of considerable size, but were so distorted by the growth that it would be well nigh impossible to assign their

proper anatomical names. The dissection was accomplished almost entirely with strong blunt scissors. The tumor

FIG. 3.

weighed twelve ounces, and two hours were required for its removal. She has gained several pounds in flesh, and is in excellent health.

Treatment of Felon Without Incision.

DR. L. DUNCAN BULKLEY, in an article read before the *American Medical Association*, said substantially :

While a certain number of cases of whitlow seem to have their origin deep in the tissues of the finger, or even in the periosteum, in the majority of cases the inflammation appears to originate, and probably does, in a relatively superficial injury, as a prick of a pin, or needle, or nail, a scratch, or other apparently trival accident, to which little or no attention is paid at the time. As is well known, when the inflammation has once started it proceeds with considerable rapidity, and three or four days after its beginning the patient may be suffering agony from the deep seated tense, throbbing pain, and the entire tissues of the finger are found to form a firm, hard mass, equisitely sensitive to pressure.

The reason for the ready and rapid extension of the inflammation from the superficial to the deep structures is undoubtedly found in the anatomical peculiarities of this part, which consist in the existence of fibrous threads extending from the skin to the periosteum, binding all the parts firmly together ; along these connective tissue bands the inflammation travels from without inward with ease, and it is also because of the existence of these connecting fibres that, under the treatment now proposed in a deep seated inflammation, originating even in the sheath of a tendon or the periosteum, the pus may find exit without causing great damage, as will be presently shown.

As an element in the production of whitlow the general condition of the patient must always be taken into consideration, and especially that unknown but still recognized state manifested by the tendency to form pus, the pyogenic habit, as it was formerly called. Every prick of a needle or nail in the end of the finger does not result in a felon; nor in a given number of subjects could it be produced in any great proportion of instances by any amount of injury to the finger tip ; nor can it be produced at will even in those who are ever so much run down in health, as in so many other conditions of disease, some predisposing cause which causes what might otherwise be an innocuous prick to become the beginning of a serious inflammatory process. Its localized phenomena would almost point to an infectious origin received with the wound, were it not that

many cases originate deeply without external puncture.

The treatment which I would advocate, and which has proved valuable in my hands, consists both of general and local measures, and has for its aim the checking of the inflammatory and suppurative process rather than the encouragement of suppuration, as is ordinarily done by poultices.

Patients even with a beginning felon are commonly found to be in a state of lowered vitality, often with more or less of a sluggish condition of the digestive organs, coated tongue, loss of appetite, etc. Unless it is contraindicated I generally begin the treatment with a mild cathartic, the following being that commonly employed:

℞. Ext. colocynth comp. Mass hydrarg., āā gr. x; pulv. ipecac. gr. ii; M. Div. in pil. No. iv. Sig: take two at night and two on the second night after.

A tonic is administered from the first, one containing iron being preferred; that usually given is a combination known as Startin's mixture, which has considerable power in controlling inflammatory affections of the skin. The formula of this is as follows, the proportions being somewhat altered to suit individual cases:

℞. Magnesii sulphatis ℥ i; ferri sulphatis, ʒ i; acidi sulphurici, dil. ʒ iv; syr. zinziberis, ℥ i; aquæ, ad ℥ iv. M. Sig: Teaspoonful in water, through a tube, after eating.

In addition to this it is my custom to administer the sulphide of calcium (calx sulphurata) from the beginning to the end of the treatment. I usually give it in the form of ¼ grain gelatin coated pills, one being given every two hours irrespective of food or other medicine. In order to have any good effect from this latter drug it is essential that it should be fresh and pure, for, as is well known, when exposed to the air it rapidly loses its free sulphur and becomes converted into the inert sulphate of zinc, or gypsum. It cannot, therefore, be well given in powders or tablets, nor even in extemporaneous pills, but it is best administered in those well coated with gelatin, which preserves the drug unaltered; it is well, however, to test the pills by biting them, when the characteristic odor of sulphuretted hydrogen becomes at once noticeable, if the article is good.

Some attention to the diet should also be paid in these cases, and specific directions should be given. Alcohol in all forms should be absolutely interdicted, and the malted liquors appear to be also very harmful. The diet should be full and nourishing, but not stimulating. Milk is often given, sometimes in the form of punch and egg-nogg, but, as I have elsewhere explained very fully, I believe that milk is not a desirable article to take in connection with other food, and my constant direction is that it should be avoided at the meals. On the other hand, it serves a most admirable purpose in raising the vital tone of these patients if given separately and alone, in the interval between the meals, preferably one hour before each meal, and late at bed time, avoiding, however, taking it within half an hour of the granules, or of any other substance in the stomach. Tea and coffee may be taken in moderation, but unnecessary and indigestible articles should be avoided.

The local treatment of felon which I have followed has the merit of great simplicity and is one which can be readily followed out by every one. It consists simply in the constant and very thorough envelopment of the affected part in a protective ointment from the

beginning to the end of treatment The application used is the diachylon ointment of Hebra, which, when properly prepared, forms a most agreeable and soothing dressing.

℞. Olei olivarum optimi, ℥ xv; plumbi oxidi, ℥ iij ʒ vj; olei lavandulæ, ʒ ij. M. Add the oil to two pounds of water and heat it with constant stirring; the litharge is to be slowly sifted in while it is well stirred, fresh water being added as required. The ointment is to be stirred until cold, and the oil of lavender then added. In winter a slightly larger quantity of oil is required to make a soft ointment.

When properly made according to the above directions the ointment is soft and unctious, and not very sticky. It is to be spread upon the woolly side of lint, very thickly, even a quarter of an inch or more in thickness, so as to completely envelop the end of the finger in a thick mass of the ointment; this is then lightly bound on and left undisturbed as long as possible; generally it is best to renew the application twice daily, and if there is no discharge, the same dressing may have fresh ointment spread upon it, and be replaced quickly. The affected part should not be handled at all, nor the ointment scraped off even, the idea being simply to keep it continuously in the mass of bland, protective and absorptive ointment, to allow the inflammatory process to subside.

The first application of the ointment is described as being soothing and pleasant in the extreme; in mild cases just beginning it allays the irritation and pain at once, and even in those who had had sleepless nights from the pain, I have had them tell me that the relief was almost complete, and that they had slept the night after the application, although in one or two instances the relief was more gradual.

Treatment of Furunculosis.

According to Dr. PALASNE, of Champeaux, the use of the iodide of iron favors the resolution of furuncles, hastens maturation when they are already present, and even prevents their appearance. It acts as a microbicide, being eliminated by the glands of the skin and destroying the pathogenic microbe of the affection. He usually prescribes Blanchard's pills of the iodide of iron two to four a day (that is to say, 10 20 centigrammes of the iodide of iron), and he continues their administration for at least eight days after the last furuncle has disappeared. As the iodide of iron is a very unstable compound, we may have to recourse to the following process: Take in a glass of water a teaspoonful of preparation No. 1: Powdered sugar, 40 grammes, iodized alcohol, 40 drops (mix rapidly, and put into a well-corked bottle). Then take immediately a packet of No. 2: Iron by hydrogen, 8 centigrammes, sugar q. s. without reflecting in any way upon the results published by Palasne, we desire to inform our readers that we have had no personal experience at all as regards the efficacy of this method. The remedies which in our hands have been of the greatest value in cases of furunculosis have been: 1, internally, the sulphides, and agents directed towards the general condition of the body. 2, locally, care of the skin, lotions of camphorated alcohol and aqueous sublimate solutions, and finally, applications of red plaster or emplastrum de vigo.—*Jour. Cutan. and Gen. Urin. Dis.*

Cleansing the Hands.

Upon this subject, Dr. M. VOGEL, of Eisleben, writes that he has noticed that coppersmiths, tinsmiths, etc., whose hands become covered with a dirt from working in oxides and acids that can-

not be removed by ordinary means, first rub their hands with warm oil, and when this has thoroughly penetrated, rub them with powdered borax. Subsequent washing with soap and water makes the hands perfectly clean. He advises those who have to use carbolic acid to go through the process above described first, and claims that in this way (1) disinfection is more thorough; (2) the hands are made purer than it is possible to make them by soap alone; (3) the hands remain soft and free from troublesome, rough epidermic scales, and the odor of carbolic acid is destroyed; (4) the uncomfortable anæsthesia of the hands is avoided after washing with carbolic acid.—*Allgem. Med. Cent. Zeit.*—*Medical and Surgical Reporter.*

Incised Tendo-Achilles.

Dr. A. G. Miner, of Niles, Ohio, kindly sends the following:

In your July number, I see an account of a complete transverse section of the tendo-achilles and its treatment, which I think a little defective, notwithstanding the admirable results; and I conclude that the history of a case of my own would possibly be interesting to many of your readers.

In February, 1886, J. C. L., while using an adz to remove stub shot of a seasoned oak plank, received a cut from a glancing blow which partially severed the tendon from before backwards very close to its insertion. His physician applied court plaster, and ordered rest for a week or ten days, without any appliance to overcome the tension of the tendon. At the end of this time the patient began using his foot, being careful to step squarely so as not to cause tension of the tendon. This care was exercised for nearly three months, when, in making an effort to head off some trespassing cattle, he sprang too violently on the injured foot and the tendon at once became entirely severed. He visited me about the second day after. I ordered him home, a distance of over 20 miles, with a promise to operate upon him the next day, the 13th of May, 1886. The anæsthetic—chloroform, ether and alcohol (Squibbs')—was administered by his brother-in-law, Dr. C., of L. I cut down upon the lower segment of the tendon, which did not exceed an eighth of an inch in length. The upper segment had retracted about 2½ inches, so that I was obliged to make an incision of 1½ inches transverse to the first. A tenaculum was then passed into the sheath of the tendon far enough to seize and draw it down and out half an inch. The tendon was temporarily held in place by being transfixed with a silver sutured needle, while the ends were being freshened. The upper end was clubbed, having a diameter at least one-half larger than normal. After freshening the ends, cleansing the wound and removing some old clots close to the calcis, I drew the needle through the tendon, reversed it through the lower segment, and in doing so was obliged to keep close upon the bone to get sufficient tissue to hold the wire suture, which was double. I then drew upon the two ends of wire until the ends of tendon were approximated, twisted them together thoroughly, cut off ¼ inch of twist, turned it down alongside the severed ends of tendon, and sewed up the external wounds. Patient was now pretty well from under the influence of the anæsthetic. A plaster cast was applied anteriorly and laterally, leaving the back of the leg and foot uncovered. The foot was maintained in the most extended position possible by my assistant until the cast had hardened, when a handkerchief bandage was applied over heel and instep, forcing the

foot into the desired position and then applied a roller bandage over all as high up as the calf, which proved a most complete arrangement for keeping the foot in position and leaving the wound open for inspection and dressing without disturbing its position. The tissues incised over tendon did not unite by first intention, as there was necessarily more or less gaping. However, they healed in about four weeks, leaving, of course, the wire suture in situ, which has thus far given no inconvenience whatever. The cast was worn about two months, when it was removed and passive, followed by active motion induced, resulting in a complete restoration of the usefulness of the leg and foot. At first the heel was raised on his shoe one inch more than the other, and removed a lap at a time until in three months after removal of the cast, he could walk with heel resting on the ground. The points I wish to make are: the use of the silver wire sutures; the long time the injury was accruing (three months); shortness of lower segment of tendon; anterior cast of foot and leg, leaving wound open at all times for inspection and dressing, without disturbing the foot; cleanliness most perfect without other antiseptics and the most perfect union resulting.

[We are pleased to call attention to Dr. Miner's case, because of the very reasons he mentions in concluding. It shows that good surgery is possible in smaller country places and without all the antiseptic paraphernalia, which most of the profession now so unwarrantably deem it criminal to neglect to use. The shortness of the lower segment of the tendon, the age of the injury, and the gaping of the tissues, all tended to make the operation a failure. This, however, was averted by a degree of skill, a deftness and ingenuity rarely found in small country places. We congratulate the doctor on his having awaited the completion of the healing process, before giving his case to the press.] A. H. P. L.

The Treatment of Kyphosis.

The author has found Sayre's corset inconvenient, and has modified it by making one which is composed essentially of a pelvic girdle, which is the point of fixation, and from which, posteriorly and at right angles, two parallel bars spring, having a space between them large enough to accommodate the spinal column. Above they are joined by a crosspiece, at the ends of which are attached two supports, carefully padded, which, having been carried under and over the shoulders, are again fixed to the crosspiece at the top of the bars. The most important feature of the corset is a girdle, which is intended to cover and compress that part of the column which suffers from kyphosis, together with a few of the adjacent vertebræ above and below. This girdle or strap is firmly fixed at one end to one of the bars at the proper level, while the other end is supplied with three small straps by which it can be attached to the other bar and tightened to any desired degree. That part of the column which does not require compression is entirely free, the anterior parts of the thorax and abdomen being unconfined also, the treatment thus differing from that with Sayre's corset. There are also no lateral nor subaxillary supports. The advantages which the author claims for his corset are—

1. It supports the weight of the body and relieves the kyphotic vertebræ from too great pressure.

2. It immobilizes the vertebral column in extension.

3. It exercises no pressure upon the thorax to interfere with the respiratory act.

4. It does not restrain the movements of the limbs.

5. It does not exert too great pressure upon the projecting parts of the skeleton, and so obviates attrition and ulceration of the skin.

6. It does not interfere with the ordinary requirements of the body as to cleanliness.

7. It furnishes the patient with a more comfortable and lighter corset than those which are commonly used.—*Rev. Mens. des Mal. de l'Enf.—Arch. Pediat.*

Stenocarpine.

DR. KNAPP sums up the results of experiments with the new anæsthetic stenocarpine, as follows :

From the preceding and Dr. Claiborne's observations, it follows that Drs. Goodman and Seward have presented us with a new local anæsthetic that is very similar to cocaine, chiefly differing from it by its more powerful and lasting mydriatic property. This difference determines its range of applicability.

1. Everywhere, when dilatation of the pupil is desirable—*i. e.*, in all conditions that have a tendency to congestion and inflammation of the iris—stenocarpine, either alone or in combination with atropine, is beneficial, and preferable to cocaine.

2. Though its mydriatic effect be less persistent than that of sulphate of atropine, stenocarpine may be used with more advantage when in iritis there is increase of eye-ball tension, a tendency to glaucoma, and when there is great pain. Further observations have to show whether or not stenocarpine, as other mydriatics, leads to granulations of the conjunctiva. If it does not, it will be very valuable in cases of chronic iritis.

3. Stenocarpine is inferior to cocaine when we want anæsthesia without mydriasis, as is the case in the majority of operations—removal of foreign bodies, paracentesis and incision of the cornea, iridectomy, extraction of cataract—more especially when in this operation the iris is spared—operations on the conjunctiva, the lachrymal apparatus and the eyelids. For an ophthalmoscopic examination, homatropine will be preferable.

4. If we want to be certain of a complete paralysis of accommodation, for which stenocarpine is as reliable as sulphate of atropia, stenocarpine deserves preference because its action lasts only half as long.

5. Applied externally to an unbroken cutis, it produces no anæsthesia. Observations to the contrary mentioned by Goodman and Claiborne must be owing to peculiar conditions which further experience has to determine.

6. Small doses (four drops) rapidly absorbed may produce transient general symptoms—pallor of the skin, cold perspiration, dizziness, stupor, fainting, nausea, and weakness. The same symptoms are produced by cocaine.

7. Larger doses cause the most alarming general symptoms—violent tetanoid convulsions, opisthotonos, dilatation of the pupils, excessive acceleration of pulse and respiration, and prostration.

8. Introduced into the veins, stenocarpine is the strongest poison, causing death almost instantly by arrest of respiration and pulsation.

9. It is certainly dangerous to inject even small quantities into vascular tissues, such as the orbit, for instance ; it appears even unsafe to inject it under the skin in quantities exceeding ten minims of a two per cent. solution—*i. e.*, about 0.01 (1-6 grain). We should also be on our guard if we apply it to an open wound during the progress of an operation.

10. The symptoms of poisoning, as has been seen from the above descrip-

tion, are like those from strychnine. The affinity of the two substances should be further investigated. The chemical tests for the detection of strychnine applied to stenocarpine have proved negative. The reflex excitability from stenocarpine is less than from strychnine, also its toxic effect is considerably less. I instilled into the eyes of a rabbit four drops, and into one eye of another two drops of a two per cent. solution of nitrate of strychnine. Both animals died from tetanoid convulsions in ten minutes. Ten and fifteen minims of a two-per-cent. solution of cocaine injected into the orbits of rabbits had no general effect.

The alkaloid stenocarpine was separated by Dr. Seward from the leaves of a tree growing in Louisiana, called the "Tear Blanket Tree." From its likeness to the acacia stenocarpo he dubbed it stenocarpine.—*Medical Record.*

Transplantation of Tendons.

PEYROT reports the case of a 14 year old boy who had had both flexor tendons of the middle finger cut, and after that the finger could only be flexed slightly with half of the interosseous. The ends of the divided tendons were about 4 cm. apart. Peyrot united them with small pieces of tendon taken from a young dog at the time, and fixed the pieces with catgut. While the wound in the skin did not heal by primary union, the pieces of transplanted tendon healed in. On account of adhesions with the cutaneous cicatrix, movement was not complete, but was much better than before the operation.—*Centralbl. fur Chirurgie.*

Measurement of the Breast.

In the *St. Louis Medical and Surgical Journal*, F. L. J. says that it frequently becomes desirable, as for instance, after Estlander's operation, to keep track of the shrinkage or other changes in the size or shape of the chest. A very simple method of accomplishing this is from time to time to make a plaster cast, of limited width, of the surface which it is desired to measure. To do this, take a roll of bandage from one to two inches wide, and, after passing it through plaster (as in preparing a plaster bandage), lay it on the surface to be measured, folding it on itself backward and forward until a half-dozen or more thicknesses have been superimposed. After the plaster has set, remove the splint thus formed and make a tracing of the inner curve. By comparing the tracing thus obtained, very accurate results may thus be secured. This idea was first suggested, but in another form, by Dr. Le Fort, in a communication to the Société de Chirurgie. Dr. Le Fort's idea is to take a full plaster cast of the chest, and then make sections of the cast.—*Medical and Surgical Reporter.*

A Device to Secure Fixation of Fragments in Compound Fracture.

DR. MOLLOY describes the following method, as seen in Schede's wards at Hamburg:

The treatment of compound fractures presents some novel features. The wound or wounds are laid freely open, irrigated thoroughly with corrosive sublimate solution, 1:1000, all loose splinters of bone removed, fractures reduced, and fixation of the fragments secured by means of a little device of Dr. Hansmann, the first assistant surgeon. It consists of a small metal plate about half an inch wide and as long as is necessary, perforated with holes at short distances. It is laid upon the periosteum, and a screw inserted through one of the holes into the bone on each side of the point of fracture. Two of these little splints are usually employed in a fracture

of a large bone, after which the immobility of the limb is secured in the usual way by splints, the wound being left open and treated antiseptically. The metal plate has the advantage over bone sutures in being much more easy and simple in its application as well as removal, and it secures and maintains the approximation and fixation of the fragments just as firmly.—*Lancet.*

VENEREAL DISEASES.

Value of the Modern Method of Treating Syphilis by Hypodermic Injections.

Dr. Prince A. Morrow, in a communication under this heading to the *Medical Record*, says: A careful weighing of this clinical testimony, balanced by my own observation and experience, justifies the following conclusions:

The hypodermic use of mercury, in simplicity, convenience, scientific accuracy, rapidity of action and the development of a maximum effect from a minimum quantity, constitutes a decided improvement over the ordinary modes of introducing this drug into the system.

The hypodermic method is not so liable to cause salivation, gastro-intestinal disorders, and other toxic symptoms of hydrargyrism.

There is remarkable unanimity of opinion as to its efficacy in suppressing the active manifestations of the secondary stage and hastening their involution.

The claim that the hypodermic use of mercury increases its potentiality and widens the range of its curative action, enabling it not only to subdue refractory secondary lesions which resist ordinary treatment, but also the tertiary lesions of syphilis, may be considered as yet *sub judice.*

The claim that it endows mercury with a greater permanence of action, preventing relapses and preserving the patient from manifestations of the diathesis for a long period, is not proven.

The more pretentious claim that the hypodermic injection of twenty-five centigrammes of the bichloride, or forty centigrammes of calomel, cures syphilis, must be rejected as extravagant and absurd.

The irritant action of mercury introduced subcutaneously, manifest in the production of pain and local accidents, renders its general employment in the systematic treatment of syphilis impracticable.

Until these objectionable features be modified or overcome, the proper position of hypodermic medication in the therapeutics of syphilis is in the category of adjuvants.

Its employment is indicated where the necessities of the case demand a rapid and intense mercurialization. In certain emergencies, when, for example, the integrity of an important organ is threatened, its prompt and energetic action renders it superior to other modes of mercurialization.

In exceptional cases, marital syphilis, for example, where the exigencies of the situation demand secrecy in treatment with the speediest possible suppression of the symptoms, this method is to be recommended.

In cases where gastro-intestinal irritation is so marked as to forbid the introduction of mercury into the stomach, it constitutes a most efficient reserve treatment.

In tertiary syphilis, where the iodine idiosyncrasy is so marked as to preclude the use of iodide of potassium, the hypodermic use of mercury should be substituted.

My own impression is, that while the hypodermic method will never supplant the classic modes of employing mercury, yet it constitutes a decided acquisition

to our therapeutical resources against syphilis, too valuable to be ignored or practically disregarded, as has been the case in this country.

The actual worth of mercury administered hypodermically can only be determined by cumulative experience. Dr. Morrow's paper is a timely one, and his conclusions as stated seem just and in the main correct.

Impotence.

℞. Tinct. cantharidis, f ʒ ijss ; liq. ferri perchloridi, f ʒ ijss ; acid. phosph. dil., f ʒ ijss ; tinct. limonis, f ʒ ss ; aq. chloroformi ad., f ℥ ij. M. S.—One teaspoonful thrice daily, in water.

℞. Phosphori, gr. ij ; ext. nucis vomicæ, gr. xij ; ext. cannabis ind., gr. iv. M. S.—Divide into twenty-four pills ; one night and morning.

℞. Liq. strychniæ (P. B.), f ʒ j ; aq. lauro-cerasi, f ʒ j ; liq. ferri perchlor., f ʒ j ; aq. dest. ad., f ℥ viij. M. S.—Two tablespoonfuls three times daily.

Interrupted faradic currents to the perineum and testicles.

Passage of steel sound.

Ergotin hypodermically to dorsum of organ.

Perineal douche.

Ext. ergotæ fl. ♏ xx, ter die.

℞. Ferri arseniatis, gr. v ; ext. ergotæ aq., ʒ ss. M. Divide into thirty pills. S.—One night and morning.

℞. Tinct. sanguinariæ, f ʒ iij ; ext. stillingiæ fl., f ʒ v. M. S.—Twenty drops in water night and morning.

℞. Pulv. cantharidis, gr. vj ; ext. nucis vomicæ, gr. vj ; ext. lupuli, gr. xxxvj. M. Divide into twelve pills. S.—One night and morning.

℞. Potass. bromidi, ℥ j ; tinct. cantharidis, f ʒ ijss ; inf. digitalis ad., f ℥ viij. M. S.—One teaspoonful night and morning.

℞. Ferri sulph. exsisc., gr. xlviij ; ext. cannabis ind., gr. vj ; ext. belladonnæ, gr. iv. M. Divide into twenty-four pills. S.—One night and morning.

℞. Tinct. capsici, f ʒ j ; tinct. ferri perchloridi, f ʒ ij ; aq. dest., f ℥ xij. M. S.—One-sixth part night and morning. —*Med. World.*

DISEASES OF THE EYE AND EAR.

Treatment of Burns of the Cornea.

Nothing is more important in the treatment of burns of the cornea than that they should be properly attended to while fresh. The "Fourth of July," so prolific of injuries and burns of all sorts, usually furnishes a quota of burns of the cornea. I have just seen one and as the treatment is in most respects a typical one, I will give it. The boy—a lad of twelve years, had dropped a match into a box of loose powder, and the resulting flame burned off his hair, brows and lashes, and touched the cornea of both eyes. There was no violent explosion and consequently there were no powder grains to pick out, but the burns, while superficial, were sufficient to produce great irritation of the eyes and surrounding skin, and the pain was great. I first used a few drops of cocaine solution to relieve pain and the better enable me to get the lids open. I then cleared away all the crusts from the edges of the lids, and the loose hairs that had gotten into the eyes. If powder grains had been driven into the surface of the cornea (as is usually the case) I would have carefully picked these out as far as possible so to do. A solution of atropine and cocaine (4 grains of each to the ounce of water) was then ordered with the directions to drop a few minims into the eyes every two hours. The eyes were not tied up or bandaged (for reasons hitherto given in this depart-

ment) but the patient was told that if the light were unpleasant or painful, they should be properly shaded. This was all, and the patient has gotten along very nicely, making a good recovery. The object of all treatment in burns of the cornea is to allay pain and irritation as much as possible while nature heals the injury. No known method of treatment will prevent the burned tissues from sloughing away. All irritants must be excluded as harmful. In the combination of atropine and cocaine indicated above, we have the best possible application for all kinds of burns of the cornea. The cocaine kills the pain while the atropine, by its direct and almost specific action on the cornea, prevents inflammation and assists nature in the healing process. Both are powerful anodynes and their combination gives us a most admirable treatment for this class of injuries.—*St. Louis Medical and Surgical Journal.*

Sympathetic Inflammation of the Eyeball.

GUNN (*Roy. Lond. Ophth. Hosp. Rep.*), as a result of the analysis of about fifty cases of sympathetic inflammation of the eye under his own observation, draws the following conclusions: 1. It is well to employ mercurials in all cases during the acute stage, from the commencement. 2. When and while the inflammation is of a very severe type, treatment should be merely palliative, and no operative measures are warranted. 3. Cases of moderate severity are best left alone, without operation, for the first six months at least, and then iridectomy may be attempted if the tension is plus, and the iris bulged forward. If at the end of a year the tension is about normal, but the pupil excluded and occluded, improvement may be expected from a large iridectomy, with extraction of the lens, followed subsequently by division of the lymph and opaque membrane with Weiss's scissors.—*N. Y. Medical Journal.*

Curability of Detachment of the Retina.

PROFESSOR X. GALEZOWSKI, of Paris, France, had observed in twenty years among 152,000 persons 789 detachments, of which 87 were in both eyes, 63 in emmetropic and hypermetropic eyes, and 194 were traumatic; 13 occurred after extraction of cataract, 18 were syphilitic, and 4 in sympathetic affections. Tumor was found in 10 cases. Twice only he found detachment in retinitis albuminurica, although he frequently saw this affection. Cataract is very frequent in detachment of the retina.

Occasionally tearing of the retina is noticed, with the corpus vitreum introduced behind the retina, between the choroid and retina. He could say that the rupture of the retina is not so frequent, and considers it the consequence and not the cause of the detachment. Professor Graefe has said that the detachment is not curable, and the function of the retina is not restored. Dr. Galezowski had seen a case which showed alterations in the retina at the place of detachment, which had been completely cured. The patient gave the usual history of trouble with the vision, coming on suddenly and continuing for one or two or three months, with afterwards recovery of sight. He explained the appearance of the fundus as seen by the ophthalmoscope, and illustrated them on the blackboard.

The conditions predisposing to detachment were said to be (1) choroiditis; (2) liquefaction of the corpus vitreum. In treating these cases he begins with antiphlogistic treatment, atropia, rest, etc., and he had in seven cases a complete cure,—the retina completely

adherent, and around the line of the separation atrophy, with pigment deposit and choroiditis disseminata. The first indication is antiphlogistics. Apply every month two, three, four, or five leeches, then atropine, and warm and cold compresses alternately, and in the intervals between the leeches he applies derivative plasters. Inside of five months he has completely cured detachment of the retina. Mercury and potassium iodide are also useful where exudation is present, or in cases of constitutional disease.

Fifteen years ago he proposed iridectomy to stop the inflammation of the choroid, but it did no good in that way, although it stopped the iritis. Now he proposes a new operation. He considers the exudation behind the retina as being of the same character as the effusion in pleuritis or peritonitis, and has had an instrument (which he exhibited) made to aspirate the fluid. The instrument is a syringe with a stop-cock and an aspirating needle. He introduces the needle through the sclerotic at a considerable distance behind the ciliary body, and passes into the globe for some distance, then he exhausts the air by drawing out the piston. If the needle point is too far in, no fluid appears in the barrel of the syringe, but on withdrawing the needle gradually the fluid appears, and one, one and a half, and two grammes are generally obtained. There is no inflammation after the operation. By this means two out of seventeen cases operated on were completely cured, and there is a certainty of amelioration in all.

In old cases he introduces a curved needle from behind forward through the sclera and the detached retina, before introducing the aspirating needle, and when the fluid is drawn off a catgut ligature is drawn through as a seton and brought tight.

DISEASES OF THE SKIN.

Treatment of Diseases of the Skin.

Formulas abstracted from an advance sheet of *A Practical Treatise on Diseases of the Skin*, by Dr. John V. Shoemaker.

Eczema, Acute.—Take of tartar emetic 1-2 grain ; solution of acetate of ammonium, 6 ounces. Mix. Dose : 1 tablespoonful in water every hour or two.

Take of subnitrate of bismuth, 2 drachms ; fluid extract of gelsemium, 50 drops ; powdered nutmeg, 40 grains; sirup of ginger, 3 ounces. Mix. Dose: 1 or 2 teaspoonfuls in water every hour or two.

Take of oil of gaultheria, 1-2 ounce ; carbonate of magnesium, 8 drams ; water, 10 ounces. Mix. Dose: 1-2 to 2 drams in water three times a day.

Take of carbonate of magnesium, 1-2 ounce ; aromatic spirit of ammonia, 1 dram; tincture of rhubarb, 1-2 ounce; peppermint water, 4 ounces ; sirup of lemon, 2 ounces. Mix. Dose: 1 tablespoonful three or four times a day.

Eczema, Chronic.—Take of arsenious acid, 1 grain ; extract of belladonna, 5 grains ; extract of calamus, 2 scruples. Mix and divide into 20 pills. Dose: 1 pill three times a day.

Take of icthyol (sulpho-icthyolate of sodium), 2 drams; Dose : 5 to 20 drops in water two or three times a day.

Take of icthyol (sulpho-icthyolate of sodium), 1 scruple. Divide into 40 pills. Dose : 1 to 10 pills a day.

Take of phosphide of zinc, 3 grains ; extract of Indian hemp, 3 grains ; sulphate of quinia, 1 dram. Mix and divide into 30 pills. Dose: 1 pill after each meal.

Take of Venice turpentine, 5 grains; extract of belladonna, 5 grains; extract of gentian, 2 scruples. Mix and divide into 20 pills. Dose: 4 to 6 pills a day.

Take of Tartar emetic, 2 grains ; sulphate of quinia, 2 scruples. Mix and divide into 20 pills. Dose: 1 pill four times a day.

Eczema, Acute (*Tetter*).—Take of morphia, 1 grain ; tincture or gelsemium, 1 drachm ; bicarbonate of sodium, 1-2 ounce ; comphor water, 2 ounces ; spirit of nitrous ether, 2 1-2 ounces. Mix. Dose: 1 or 2 teaspoonfuls every three or four hours.

Take of sulphate of magnesium, 1-2 ounce ; tincture of aconite root, 12 drops ; sirup of senna, 1 ounce ; water, 3 ounces. Mix. Dose: 1 dessertspoonful every four hours.

Eczema, Infantile.—Take of sirup of iodide of iron, 1 ounce ; fluid extract of malt, 5 ounces. Mix. Dose: 1-2 to 2 teaspoonfuls three times a day.

Take of calomel, 5 grains ; sugar, 1 scruple. Mix and divide into 5 powders. Dose: 1 powder every second or third day, followed with one half teaspoonful of carbonate of magnesium or a teaspoonful of castor-oil.

Eczema of the Genital Organs.—Take of tincture of Hoang-Nan, 1-2 ounce. Dose: 3 to 30 drops in water three or four times a day.

Eczema of the Vulva or Vagina.—Take of extract of belladonna, 5 grains; arsenious acid, 5 grains ; extract of opium, 2 grains ; sulphate of quinia, 1 scruple ; oil of theobroma, sufficient. Mix and divide into 20 suppositories. Dose: insert 1 in the vagina four times a day.

Eczema of the Anus.—Take of arsenious acid, 5 grains ; extract of hyosamus, 4 grains ; carbonate of iron, 1 dram. Mix and divide into 20 suppositories. Dose: insert 1 four times a day.

Eczema of the Scrotum.—Take of tincture of Hoang-Nan, 3 drams. Dose: 2 to 20 drops in water every three or four hours.

Epithelioma—Epithelial Cancer—Sarcoma—Carcinoma.—Take of powdered bloodroot, 10 grains ; extract of conium, 10 grains ; extract of hyosciamus, 4 grains. Mix and divide into 30 pills. Dose: 1 pill three times a day.

Take of arsenious acid, 1 grain ; extract of belladonna, 5 grains ; sulphate of quinia, 40 grains. Mix and divide into 20 pills. Dose: 1 pill three times a day.

Take of arsenite of sodium, 1 grain ; iodide of iron, 40 grains. Mix and divide into 20 pills. Dose: 1 pill three times a day.

Take of sulphate of morphia, 1-2 grain ; bromide of sodium, 3 drams; sirup of lactucarium, 5 ounces. Mix. Dose: 1 tablespoonful every two or three hours until relieved of pain.

Erysipelas.—Take of tartar emetic, 1 grain ; camphor water, 3 ounces ; spirit of nitrus ether, 3 ounces. Mix. Dose: 1 tablespoonful in water every one or two hours.

Take of hydrochlorate of pilocarpine, 1 grain ; tincture of aconite root, 24 drops ; water, 3 ounces. Mix. Dose: 1 teaspoonful every three or four hours. *Medical Register.*

Urticaria from Bed-Bugs.

My attention has been more particularly called to this subject by having noticed several similar cases at comparatively short intervals. It is a well-known fact that the ordinary bed-bug (*cimex lectularius*) produces a wheal which is of a burning, itching character, and marked by a very small, almost imperceptible punctum near its central portion. The animal itself is not always confined to beds, but occasionally roams abroad, and, in consequence, when it seizes upon its host, is proportionately more voracious on account of the scarcity of food which it finds. Along

the edge of water closets, especially those adjoining sleeping rooms, it is no uncommon thing to find these odorous pests. They lie in wait for their victim and, whilst very insidious in their method of attack, produce large and troublesome wheals in the popliteal space and neighborhood. The victim has urticaria suddenly and then cudgels his brain as to the probable cause, little suspecting that an unseen foe has attacked him. By lifting the cover of the water closet, which is next to the bowl, the "bugs" can be discovered. Then when necessity drives one again to the closet, intervene a piece of paper between the body and seat, and upon removing it the animals will be found upon it. Carbolic acid, corrosive sublimate or, better still, campho-phenique liberally distributed about their haunt will effectually destroy these disturbers of the peace of a contemplative nature.—*St. Louis Medical and Surgical Journal.*

Hysterical Pemphigus.

Mr. AUGAGNEUR, of Lyons, reports an interesting case in *La Province Médicale.* An hysterical woman had pemphigus, the bullæ of a large size being situated upon the left leg, the dorsum of the foot and on the calf up to the popliteal space. The lesions were irregular in shape. The author demonstrates that, in the present instance, it was the hysteria which caused the cutaneous trouble by bringing about disturbances in the vasomotor innervation. It must not be forgotten that hysterical women are very prone to be malingerers and seem to have a special delight in making themselves interesting and objects of solicitude. The principal cutaneous diseases which they are apt to simulate are chromidrosis (colored sweat) and pemphigus. The latter is done by means of heat or strong acids, and it often requires not only good powers of discrimination, but thorough and ingenious cross-examination to arrive at the truth. Any suspicious appearance accompanying such lesions should make the physician wary and especially careful of making a hasty diagnosis.—*Ibid.*

Tincture of Siegesbeckia Orientalis in Ringworm.

Of the drugs now generally prescribed in the treatment of tinea in its several varieties, some are exhibited in the form of ointments, and ointments are always more or less disagreeable to use; others free from greasy annoyances give the patient more or less pain in the application. In the *British Med. Jour.*, Dr. J. HUTCHISON refers to a preparation which he has been using for some time, and which is devoid of both these drawbacks, and is at the same time a speedy and reliable means of curing the disease.

Dr. Hutchison has used it in fifteen cases of ringworm; of these, eight were cases of tinea circinata, four of tinea sycosis, two of tinea tonsurans, and one of tinea versicolor. The site of the eight cases of tinea circinata was in six of them upon the neck, and in two upon the calf of the leg. None of the patients called upon me till the disease was well developed, when the red, raised, circular, bounding edge, and the pale central area with its branny desquamation, left little doubt of the diagnosis. The four patients who were afflicted with tinea sycosis all blamed a "foul shave" for their ailment. In all of them the disease was upon the chin, and presented the characteristic fig-like appearance. The two cases of tinea tonsurans showed the roundness of the diseased patches, the scaly eruption, and the brittleness of the hairs peculiar to

that form of the trouble. The one case of tinea versicolor was also typical.

His prescription in all of them was the same, namely, equal parts of tincture of siegesbeckia and glycerin, and this he ordered to be well rubbed into the affected area night and morning. The drug appears to act both as a stimulant and a parasiticide, and the method of cure was for the diseased patch to become broken up into a number of smaller patches, with sound skin intervening. These smaller patches became again broken up till they disappeared altogether, and in their place was left a red blush, as if the place had been struck a smart tap with a cane. This redness, however, only remained for a day or two. The two cases of tinea tonsurans were the most stubborn to give way, but even in their cases more frequent applications, and continuing the treatment over a longer period, brought about the result desired, and that, too, without resorting to epilation. —*Therapeutic Gazette.*

Ichthyosis.—Fish-Skin Disease.

The first indication in the treatment of ichthyosis is to remove the epithelial hypertrophy, and the second, to restrict its re-formation as much as possible.

As the disease is always milder in summer, the thought occurs that free perspiration promotes the removal of the thickened epidermis, and on trial this is found to be the case. The administration of jaborandi (℥ i of the fluid extract daily), or of its alkaloid pilocarpine (one-fifth grain hypodermatically) have been followed by rapid disappearance of the epidermal accumulation. Locally, soft soap, spread upon muslin and applied like a plaster, produces rapid maceration and removal of the upper layers of the skin, but it is liable to be followed by eczema or other forms of dermatitis. The soap may also be used in the form of Hebra's *Spiritus Saponis Kalinus*, applying it with friction daily, or several times a day, and following its use with some soothing ointment, to restrain any eczematous tendency.

Alkaline baths, containing from two to eight ounces of carbonate of soda to the bath, are useful in the milder forms. Duhring highly recommends vapor baths. After the skin has been well softened by the bath, an ointment should be well rubbed in with considerable friction, constituting a sort of massage treatment. Ointments of various composition may be used.

Duhring recommends this: ℞ Adipis benzoati, ℥ i; glycerinæ, ♏. xl; petrolati, ℥ ss. M. S.—Apply after bathing.

Anderson advises a combination of bicarbonate of potash with oleate of bismuth as follows: ℞. Potassii bicarb., ℥ iii; glycerinæ, ℥ iss; ungt. bismuthi oleatis, ℥ iv. M.

In my own practice, the simple glycerite of starch, so highly recommended by Lailler, has proven very effective in mild cases. The addition of two to five per cent. of salicylic acid ought to render this still more efficient.

The wearing of rubber gloves, when the disease is localized upon the hands, will keep the skin soft and pliable, especially if combined with one of the above mentioned ointments.

A permanent effect can only be obtained from any of these measures if their employment is persistent.—*Md. Medical Journal.*

Seborrhœa.

Equal parts of linseed oil and lime water thoroughly rubbed into the scalp, has proved markedly beneficial in these cases. It is also beneficial in the eczema of babies and early childhood.

FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

A New Method for Overcoming Adduction at the Hip Joint.

DR. HENRY LING TAYLOR (*New York Medical Journal*):

Abduction of the thigh from reflex muscular spasm in the acute or progressive stages of hip disease, readily yields to the protective traction which is indicated at that period, and which can be adequately furnished by the long hip splint.

Persistent adduction in the late stages, or after the cure of the disease, whether from the neglect of proper mechanical treatment in the beginning, from a subluxation of the head of the femur due to erosions, or from other causes, is very common, very serious as regards the patient's comfort and power of easy locomotion, and often very intractable.

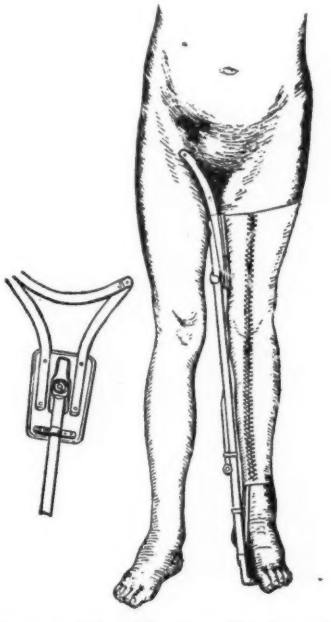
To overcome such deformities, as well as those where a persistent adduction had resulted from unreduced luxations of the hip, old fractures of the neck, etc., and to maintain a correct position, Dr. C. Fayette Taylor devised, and has used for about twelve years, various forms of apparatus, which exerted a direct abducting force by means of a carefully fitted crutch bearing in the opposite ischial fold. This abducting arm or crutch was jointed to the knee plate of a stiff or jointed apparatus, and was operated by a key and ratchet, or as a toggle-joint. These devices, being found vastly more efficient, superseded entirely the abduction screw, and proved very satisfactory.

About three years ago Dr. C. Fayette Taylor adopted the plan of using his long hip-splint on the inside of the adducted leg and bearing above in the opposite ischial region, thereby securing great force and directness of action.

We have used this plan in appropriate cases ever since, with very great satisfaction.

The apparatus consists in the shank and side-plate of the long hip-splint which we use, ending above in properly shaped spreading bars carrying a perineal strap adjusted to the groin opposite to the adducted thigh, as shown in the cut, which also gives the detail of the upper part, viewed from the left side.

The apparatus is applied to the inside of the adducted limb, and fastened by



a strap and buckles to adhesive plasters attached to the leg, as in cases of hip disease.

Screwing out the apparatus by the key produces a direct and well-nigh irresistible abducting force, which is easily borne and perfectly under control.

This apparatus is to be worn in bed, with the leg in a sling and extra weight attached; a few days to a few weeks are enough to overcome the adduction.

When the leg is sufficiently abducted, a retaining apparatus with abduction crutch, jointed to the knee-plate, is to be worn, when necessary, to maintain the correct position. We could relate a considerable number of cases, but one will suffice to illustrate the practical value of the procedure.

A gentleman reported with an adduction of the right leg of thirty years standing, from an injury to the hip.

When seen the adduction amounted to about 20,° and could not be diminished by manual force; together with the actual shortening it necessitated an extra sole three inches and three quarters in thickness.

The adduction was completely overcome in less than two weeks, the legs restored to vertical parallelism, and the sole reduced to one inch and three quarters, which represented the actual shortening. Progression was rendered very much easier, and the patient did not complain of pain or fatigue as he had done. The position was easily maintained by a retaining apparatus.

In this case the deformity was reduced by a less perfect apparatus than the one shown.

With these improved methods the distressing and disabling deformity of crural adduction has ceased to be, in the large majority of cases, the formidable matter that it has been, and we believe that where proper attention can be secured permanent abduction need never occur, and that when this condition has supervened it can be safely and quickly removed with scarcely any discomfort to the patient, and without resort to the knife in nearly all condition except bony ankylosis.

Improved Splint.

DR. D. BENJAMIN, (*Medical and Surgical Reporter*):

This splint, called the "Day Splint," with double inclined plane, has been in use in hospitals and private practice for many years, and it is considered by many surgeons the best splint that can be used for fractures of the lower extremities. It has some advantages, viz.: In treating compound fractures it will permit the surgeon at all times to inspect the injuries to the soft parts, as they can be treated on this splint without bandaging. It also has the advantage of the hinge at the apex of the frame, under the knee, which permits the passive movement of the joint, without permitting the movement of the fragments of fractured bones.

The mechanical principles upon which it is constructed are correct, but the methods used in its construction are defective. The splint would, no doubt, be more extensively used were certain objections and imperfections in its mechanism overcome. In the first place, there are no adequate means of keeping the heel of the splint in the notches, and it has been the experience of every surgeon who has used it that, notwithstanding the most careful tying, it will frequently slip out, letting the leg suddenly down straight, thereby bruising and deranging the ends of the bones.

The second objection is that the movable foot-piece does not come down low enough towards the bottom of the heel to make traction in the line of the long bones, but makes its traction upon the foot, about opposite the ball of the big toe, thereby bending the ankle unnecessarily and uncomfortably, and producing inefficient traction.

Objection third: That the foot-piece wabbles from side to side, and unless great care is used in managing the screws, would be so loose as to cause a rolling of the foot and, consequently, an irritation of the wounds, and a rotation

of the lower fragments of the bone on the upper fragments, interfering with the union of the parts.

Objection fourth : That the movable foot-piece is straight up and down, whereas the natural position of the foot is with the toes turned slightly outward.

Objection fifth : That as the foot settles down towards the foot-piece, after being adjusted, the traction ceases until the screws are turned at the next visit of the physician. In using this splint I have been constantly troubled by these objectionable features, and I have therefore attempted to overcome them in the manner illustrated in the following cut.

The first objection is overcome by a plate of iron with a long slot occupying the position of the notches, and another

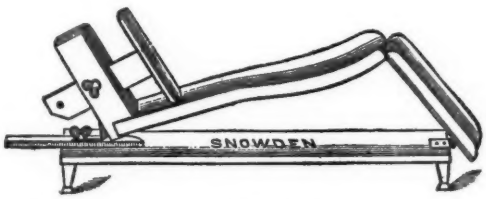


plate of iron, hinged, is screwed to the base of the permanent foot-piece. This latter plate is provided with a bolt and thumb-screw, passing through the slot in the first plate, preventing the possibility of the foot-piece slipping in any way, and also having the additional advantage of being adjustable at any distance or angle required ; in other words, of increasing or diminishing the angle at pleasure with perfect firmness and safety, and no danger whatever of its slipping.

The second objection is overcome by placing the foot-piece lower down towards the heel.

The third objection is overcome by fastening the foot-piece to a solid bar, two inches in width, and three-quarters of an inch in thickness, which slips through a mortise in the immovable foot-piece, entirely preventing any wabbling of the foot-piece. This bar can be fixed in any position by means of the thumb-screw on the side.

The fourth objection is overcome by making the foot-piece on the bar adjustable for either the right or left foot, so as to give the foot its natural eversion.

The fifth objection is overcome by allowing the thumb-screw in the side of the permanent foot-piece to be loosened and a weight attached to the bar, and hung over the foot of the bed, keeping up a constant traction, until the surgeon sees fit to fix the movable foot-piece, by means of the thumb-screw, in any desired position.

Treatment of Fractures of the Olecranon.

The cure of fractures of the olecranon, as is well known, is almost always brought about by a fibrous callus, more or less long and resistant, which, in the greater number of cases, restricts the movements of the forearm to a marked degree ; and the functional result is often bad. The cause lies in the difficulty in making and maintaining complete coaptation of the bony fragments. The old surgeons, with the idea that anchylosis of the elbow generally takes place, placed the forearm in a position of semi-flexion. In this position the separation of the fragments is considerable, and consolidation takes place only by means of a long and thin fibrous band.

The more rational idea, says M.

Fraipont, in a recent article on the subject, in the *Annales de la Société Médico-Chirurgicale de Liège*, is to place the forearm in a position which permits the better approximation of the bony fragments. This position is complete extension. On the anterior face of the elbow is placed a rigid splint, and the upper fragment of the bone, held up by the triceps, is drawn down by strips of adhesive plaster, which pass over the summit of the olecranon and cross the forearm in a spiral. The approximation of the bony parts may be done exactly in spare persons, where the fracture is accompanied by only a moderate degree of extravasation; but when blood is extravasated into the joint, especially when the quantity is considerable, coaptation is difficult or impossible. Folin advises delay until the swelling has been dispersed by the use of a fixation apparatus. But for this eight or ten days are necessary, and then it is too late to hope for bony union, even if we can succeed in placing the upper fragment against the body of the bone, for the blood between the fragments has had time to begin fibrous organization, and the new tissues play the part of foreign bodies which hinder consolidation. Lauenstein two years ago proposed to treat fractures of the olecranon by Volkmann and Schede's method for fractures of the patella — antiseptic puncture of the joint by means of a large trocar, removing as much as possible of the extravasation, which is the great obstacle to coaptation, and then approximate the fragments by adhesive strips, the forearm being fixed in complete extension by means of an anterior splint. He has reported two cases in which this method was successfully used; but it must be said that in these cases the patients came under treatment immediately after the injury, and before the blood had time to coagulate. But coagulation soon takes place—a few hours after the fracture—and the mass is then too solid to be removed by a trocar; in such cases puncture is useless and may be dangerous, despite antisepsis, on account of the blood clots in the tissues.

In a criticism on Lauenstein's article two years ago, Fraipont expressed the opinion that it would be possible in fractures of the olecranon, as in those of the patella, to practice metallic bony suture, after having carefully and antiseptically cleansed the articulation and the peri-articular tissues; and last April he had an opportunity of carrying out this idea in the case of a woman, 44 years old, who had sustained a comminuted fracture of the olecranon, the upper fragment being in several pieces. There was very great swelling of the elbow, so much so that the joint had assumed a cylindrical shape, and was filled with blood clots, which crepitated on pressure. Under such circumstances puncture of the joint could have evacuated only what fluid there was in the joint—at best, a very small quantity—and it was decided to practice metallic suture. The operation was done after the most minute antiseptic precautions had been taken, in narcosis, and after an Esmarch's bandage had been applied to the upper part of the arm. A longitudinal incision, 12 centimetres long, was made at the middle of the posterior surface of the elbow, taking in the seat of the fracture. The intervals between the fragments were filled with clots of blood, black, resistant, and firmly adherent to the bone, so that they had to be removed with a curette. Similar clots were found under the skin and in all the peri-articular tissues, and a few in the joint itself, but there was very little fluid blood. The

cleansing was made with the greatest care, and under almost continuous irrigation with a 1 per cent. solution of corrosive sublimate. The fracture was transverse, and the upper fragment was divided into three pieces, a median and two small lateral, which were adherent to the fibrous tissues surrounding them. The fragments were brought together and fitted by means of a single metallic suture, which passed through the three pieces, then through the upper part of the ulna, the articular surfaces being avoided. The forearm was placed in forced extension. The silver suture was perfectly twisted and flattened on the bone. The articular capsule, torn from right to left, was then sewn up with silk, and the skin was then united by means of deep and superficial sutures. No apparatus for drainage was applied. The joint was then covered with a dry iodoform and other dressing.

The patient left the hospital on the fourth day, having had no general reaction whatever. She returned on the fifteenth day in excellent condition, when the extension apparatus and the dressings were removed. There was no trace of local reaction or of swelling, and the wound had healed by first intention. The sutures were removed, and after applying a layer of iodoformized collodion over the line of suture, the forearm was placed in a position of moderate flexion on the arm, and fixed in this position by means of a plaster apparatus. Five weeks after the injury the second and last dressing was removed, and bony union was found to be complete. Tepid baths, massage, and passive movements were then begun, and in three weeks the woman had perfect use of her arm; she made all the movements of the forearm with ease. —*Journal American Medical Association.*

Treatment of Chronic Abscess by Irrigation.

In his address before the British Medical Association, Professor HAMILTON described the following method of treatment of chronic abscesses: A long, curved trocar and cannula are pushed through the abscess and made to transfix it four or five inches; a piece of rubber tubing with a single hole about the centre is drawn through the cannula by a thread connected with the cutting end of the trocar; the aperture in the tube being lodged midway between the wounds, the cannula is removed. One end of the tube is attached to an irrigating can hung above the patient's bed; the other end leads to a reservoir at the bedside. By means of a stop-cock the flow can be regulated as desired, a flow escaping drop by drop being sufficient to keep the contained fluid and the wall of the abscess aseptic. Distension of the sac can also be made when desired by compressing the exit portion of the tube. He considers a solution of the chloride of zinc, 1 to 200, the best antiseptic to employ, maintaining that he has obtained the best possible results from this in spite of the assertion of Koch, that chloride of zinc is inert as a germicide. He believes that if it does not kill the germs it renders the surface a barren cultivation field. After about a week the abscess wall has undergone such decided alteration that continuous irrigation is not necessary, but occasional syringing is sufficient for the perfect healing of the cavity.

Conservative Surgery in Diseases of the Foot.

MR. WHEELER (*Dublin Journal of Med. Science*) emphatically disapproves of any half-way measures when there is evident disease of the bones present, but favors their immediate excision. Before deciding on any particular operation,

the stage of the disease should be considered, whether acute or chronic, progressive or quiet, diffuse or limited. Partial operations are more successful in the chronic and non-diffused cases than in others. Caries following inflammation of ligaments is more favorable for partial excisions than when it commences in the cancelli of the bones. In the large articulations partial operations are worse than useless, especially when the inflammation is diffused.

Fluid Extract of Quebracho as an Application to Wounds.

BOURDEAUX (*Arch. Med. Belges*) says that fluid extract of quebracho, applied to a wound, a burn, an ulcer or a frost-bite, is more healing even than iodoform. Spread over such a surface, it dries in the course of half an hour, forming a tough and very adhesive brownish crust, which can be removed only with the aid of warm water; and cicatrization advances rapidly.

Circular Suture of the Intestine.

DR. WILLIAM S. HALSTEAD, of New York, contributes to the *The American Journal of the Medical Sciences*, an elaborate experimental study of this subject, which may be summarized as follows:

It is impossible to suture the serosa alone, as advised by authors.

It is impossible to suture unfailingly the serosa and muscularis alone, unless one is familiar with the resistance offered to the point of the needle by the coats of the intestines. Furthermore stitches which include nothing but these two coats tear out easily, and are, therefore, not to be trusted.

Each stitch should include a bit of the submucosa. A thread of this coat is much stronger than a shred of the entire thickness of the serosa and muscularis. It is not difficult to familiarize one's self with the resistance furnished by submucosa, and it is quite easy to include a bit of this coat in each stitch as to suture the serosa and muscularis alone.

It is unnecessary in performing circular suture of the intestines to make more than one complete row of stitches if they be of the plain quilt variety. Unless all of the stitches of the row are applied before a single one is tied, it is impossible to preserve a straight line in the application of them.

It facilitates the operation very much to make five or six presection sutures; the eversion of the mucous membrane, which otherwise takes place and makes the application of first row, postsection stitches should be introduced at the mesenteric border of the intestine, and at a place as free from fat as possible.

The plain quilt stitches are to be preferred to the ordinary Lembert's stitches, because, 1, one row of them (the former) is sufficient for the circular suture; 2, the knots of the first row of Lembert's stitches prevent the most accurate apposition of the opposed peritoneal surfaces; 3, the plain quilt stitch constrict the tissue less than the Lembert's; and, 4, the former tear out less easily than the latter. Madelung's cartilage plates, which he employs partly to prevent the tearing out of the stitches, are unnecessary when a bit of the submucosa is taken up with each stitch.

The vessels of the excised intestine should be ligated by circumvection. It is not necessary to exsect a triangular piece of mesentery, and it is unadvisable to sew together the edges of the rent in the mesentery, for, in so doing, one might include small vessels which contribute to the blood supply of the sutured parts.

Solutions of corrosive sublimate

stronger than 1:20,000 should not be used for irrigation. It would be better, perhaps to employ weaker solutions (1:30,000 or 1:40,000). The irrigation should be attended to most diligently when the stitches are being tied.

Dressing for Broken Finger.

At a meeting of the Philadelphia County Medical Society, Dr. A. C. W. BEECHER reported a case of simple fracture of the distal phalanx of the index finger, which he treated by applying a narrow bandage from the end of the finger to the second phalangeal joint, making two layers. This he coated thickly with collodion, which, drying and hardening quickly, made a neat, smooth and stiff waterproof casing, which was worn with but one change until the fracture was cured.—*Medical and Surgical Reporter.*

Fracture of the First Rib Alone.

W. ARBUTHNOT LANE states (*British Med. Jour.*), that in fewer than two hundred subjects examined consecutively in the dissecting room, he has found undoubted fractures of the first rib alone in four cases. He found several others which he believed had been fractured, but did not include them because there might be a difference of opinion regarding them. He does not include, either, cases of fracture of the first costal cartilage. Hence he considers himself justified in concluding that fracture of the first rib alone occurs in at least two per cent. of the class from which the dissecting-room supply is drawn.—*N. Y. Medical Journal.*

An Unavoidable Deformity and Disability which Follows Certain Cases of Outward Dislocation of the Foot.

DR. E. A. WOOD (*Pittsburg Medical Journal*):

In the case under consideration it is not the dislocation, but the obscure injury of the tibia, that is the cause of the subsequent deformity and disability. An uncomplicated outward dislocation of the foot, if fairly treated, will get well in a reasonable time, and get well without deformity or disability; a severely injured tibia will likely result in inflammation with its consequences, as thickening of the periosteum, interosseous deposit, thickening of the articular cartilage, hypertrophy.

In outward dislocations of the foot complicated with severe wounding of distal end of the tibia, there will likely follow inflammation and enlargement of the part inflamed. This enlargement will be not only circumferential, but longitudinal as well. Bear in mind that, while the ruptured tibio-tarsal ligaments offer no resistance to the encroachment of the elongated tibia on the joint space, thus shoving the astragalus before it, on the other side the fibulo-tarsal ligaments, by being intact, prevent the outer side of the foot from receding. The result of these two opposing forces—the elongated tibia and the intact external lateral ligaments—will be the rolling of the foot outward.

Another cause of the deformity is the enlargement of the circumference of the tibia by which the intermalleolar space is increased. Now, as the fibulo-tarsal attachment is firm, while the tibio-tarsal is loose, the foot will be carried along with the lower end of the fibula outside the axis of the leg. The astragalus cannot fill the abnormally widened intermalleolar space; and being firmly attached to the fibula, it must cling closely to that bone, and leaves a space between the internal articular facet of the astragalus and its articular surface on the internal malleolus. Besides, the thickened articular cartilage

of the tibia will have changed the plane of the joint.

Can the deformity be prevented? It is not a question pertaining to the dislocation, but one relating to an injured tibia; then, can the enlargement of the tibia be pervented? Whatever of uncertainty there may be in regard to the question of prevention, it is certain that timely and protracted treatment is necessary, and that by such treatment we confine the deformity to its minimum.

Let us take for consideration a case of outward dislocation of the foot complicated with severe injury of the end of the tibia. Let us suppose that it is at the end of the third or fourth week. No trouble was had in reducing the luxation nor in keeping it in place. There was no manifestation of the latent mischief, except more pain and feverishness than usually attended simple dislocations. But at the end of three or four weeks the surgeon, on removing the dressings, notices that the internal malleolus is more prominent than it should be, that the foot inclines to roll outward, and that the foot is slightly outside the axis of the leg. He may also notice that the ankle is more swollen, tender and painful than usual in ankle dislocations. These features, however, are but slight, and unnoticed by the patient, and indicative of a tendency to rather than actual deformity. The surgeon is apt to attribute them to faulty dressings, and accordingly he adjusts these to overcome the slight deformity or tendency to deformity. At the next dressing the surgeon learns that he has not succeeded, that the trouble persists, or is even increased, and he again adjusts the dressings to overcome the trouble; but weeks roll around and the deformity becomes more pronounced. If the surgeon be a keen observer he will learn by this time why the trouble persists; he will have discovered that the lower end of the tibia has enlarged, and that the intermalleolar space has widened. He could not prevent all deformity if he would. No justifiable force would bring the malleoli close enough to clasp as they should the articular process of the astragalus.

After two or three months, during which time special efforts have been made to prevent the threatening deformity, the dressings are finally removed and the patient left to himself and a cane. At this time the deformity is not great, but the tendency to deformity is very great, and the disability of the joint is almost total. The special dressings have held the deformity in check, but all dressings removed and weight borne upon the injured ankle, and the ruin at once becomes apparent even to the patient and his friends. So slight, apparently, was the deformity when the dressings were left off at the usual date in dislocations, that the inexperienced surgeon will incline to believe that rest and splints have done all they can do, and that exercise will complete the cure of the injured joint. Fatal mistake! It is of the utmost importance that rest and splints should be continued. In no other way and by no other means can we keep the deformity and disability within their smallest limits. A steel support reaching from foot to knee, as in *talipes valgus*—a deformity our case much resembles—should be constantly worn when out of bed. Under no circumstances should the injured limb be subjected to weight unless the ankle is supported by an efficient splint, and this adequate support must be kept up until the tenderness, pain and weakness have disappeared, which will certainly not be short of a year, and it may take two years.

But the inexperienced surgeon of our

hypothetical case, at the end of two or three months, surrenders his patient to a cane and exercise. The patient begins timidly to bear some weight on the injured ankle. Even slight weight brings discomfort, but being a determined fellow, and being told that exercise will strengthen the foot, he bravely walks on the foot with the aid of his stick; but it is a limping, painful gait, growing more painful every day until the disability of the ankle is complete. In alarm he sends for his surgeon to "break the leg over." The removal of the sustaining splints and the bearing of weight on the ankle result in displacing a foot that was not tied in its place by internal lateral ligaments. What was only a slight displacement, but a great tendency to displacement, has by injudicious management become an ugly deformity and a painful disability.

Amputations of Fingers Under Cocaine.

DR. NELSON L. NORTH, JR., of Brooklyn, calls attention in the *Annals of Surgery* to a method of employing cocaine in cases in which amputation of the fingers is necessary.

His method is as follows: On the entrance of the patient the wound is thoroughly saturated with a 4 per cent. solution of hydrochlorate of cocaine before any examination is made. After waiting a few minutes for absorption to take place, the injury can be examined and the wound probed with entire satisfaction, as the patient makes no resistance, because he suffers no pain. Flaps may then be cut, following each considerable incision with a few drops of cocaine solution, also using it occasionally to wet the entire part. Ligatures may be applied, and the bone sawed as necessity may demand. After thoroughly irrigating the wound with antiseptic solution and providing for proper drainage, sutures may be applied and the wound dressed according to the principles of antiseptic surgery.

The method is simply one of saturating the wound with the cocaine solution—the cocaine is not injected, anæsthesia being sufficient without the use of the hypodermic needle.—*Medical and Surgical Reporter.*

Influence of Position in the Treatment of Thoracic Aneurism.

DR. MACKIE reports in the *British Med. Jour.* two cases in which the change from a recumbent or semi-recumbent position with rest to the vertical with exercise was quickly followed by improvement in the aneurism. The first patient had a large aneurism, apparently of the innominate artery. He had been kept in bed five months taking large doses of iodide of potassium. At the end of five months he was allowed to get up and take gentle exercise. This change was quickly followed by diminution in the size of the projecting part of the aneurism, with increasing firmness of the consolidation, so that after a few months the patient resumed work as a hawker.

The second case was one of large thoracic aneurism in a patient with hemiplegia. The patient was unruly, and, after three weeks in bed, with restricted diet and large doses of iodide of potassium, got out of bed and moved about as much as the hemiplegia would permit. The aneurism immediately subsided and pulsation diminished.

Mackie suggests that these changes may have resulted from the displacement of a clot, or reduced blood pressure brought about by the vertical position and gravitation of the blood, conduced to by the diminished force of the heart's action.

A Ready Method of Removing Foreign Bodies from the Anterior Nares.

Physicians are often called upon to remove peas, buttons and various substances from the nostrils of children who have themselves introduced them there. A ready method for removing such substances is described by MR. T. OSBORNE-WALKER, in the *Lancet*, where he states that recently a little boy was brought under his care with a button tightly impacted in the angle between the vomer and os nasi at the bridge in the right nostil. Ineffectual attempts at extraction had evidently been made, as shown by blood oozing from the nostril, and some, coagulated, adherent to the button, partially concealing its outlines from view, and also by the button being fixedly jammed in. In such cases, to prevent struggles and interruption, the child's arms, hands and legs should be first confined, by folding tightly around these and the body a long, clean apron, and then placing the child on an attendant's lap, facing the window, while the operator stands behind the patient, and, bending over and depressing with two fingers of the left hand the apex of the nose, to admit as much light as possible upon the object to be removed, with the right hand very carefully to avoid its descent into the pharynx or larynx, the spoon end (with the concavity directed forward) of an ordinary pocket-case director should be introduced, with which at once with a simple lever movement or jerk the foreign body may be readily ejected.

By attention to the following points the removal is instantaneouly effected: The close confinement of the hands, arms and legs by a shawl, blanket or apron; a good light; a reliable person to securely hold the child; the position of the operator behind the patient; depressing well the apex of the nose to obtain a good view of the object; and, lastly, getting the concave face of the spoon of a director fairly behind the body before making the forward lever movement.

Treatment of Burns and Scalds.

PROFESSOR MOSETIG, during the last five years, has treated with iodoform forty-eight severe cases of burns and scalds with the most satisfactory results. The danger of iodoform intoxication in burns, he believes, is merely theoretical, as neither he nor others who treated burns with iodoform had, when using certain precautions, ever met with bad concomitant effects. The action of iodoform is twofold—it is both analgesic and antiseptic. The patients, according to Dr. Mundy's experience, which Professor Mosetig fully confirms, obtain ease a few minutes after the application of iodoform to their burns, and are soon fit to be moved. The patients, in Professor Mosetig's wards, repose quietly and without pain in their beds; they recover more rapidly, with only moderate and consequently less exhausting discharges, and with smoother cicatrices, than those differently treated; and if there is no possibility of saving the life, euthanasia at least is procured. Iodoform, although inert against the dangers to life from oligocythæmia and the nervous shock, guards against the danger of sepsis.

Professor Mosetig, differing from the majority of surgeons, uses iodoform in very limited quantities only. He either does not employ the powder at all, or when so in rare instances; he sprinkles it by means of an insufflator in very thin layers, only on those places where the integument has been burnt in its whole thickness, and has assumed a parchment-like appearance. As a rule he covers the injured parts directly

with compresses of iodoform gauze, not prepared in the usual way, by thickly dusting the gauze with the powder, but by impregnating with an etheric solution of iodoform the purified gauze, which has previously been freed of grease. He proceeds in the following manner: After opening and excising the vesicles, and cleaning the burns with cotton-wool, which had been steeped in a ½ per cent. solution of table salt, and well pressed out, he covers the wounds with dry compresses consisting of several layers of iodoform gauze, prepared as stated above, of corresponding size, which are exactly and smoothly laid over the whole surface of the injury. Over this an equally large or somewhat smaller piece of gutta-percha tissue is placed, taking care that it does not form folds or creases. The whole is wrapped in a very thick layer of medicated absorbent cotton-wool which overlaps to a great extent the compresses, or, better, surrounds the whole limb or injured part of the body. This cotton-wool is finally fixed by several turns of bandages, which at the same time exert a gentle pressure. This simple dressing, which, moreover, has the advantage of taking up very little time, is allowed to remain, without being changed, as long as possible, *i. e.*, as long as cleanliness permits, and no rising of the temperature takes place.

The secretions from the wound drain off beneath the gutta-percha tissue, and are taken up by the absorbent cotton-wool. Slight staining of the bandage is no sufficient indication for renewing the dressing, which ought to be permanent; in case of real imbibition and offensive smell, only the external dressing has to be removed and changed; the iodoform gauze, and the gutta-percha covering, however, should not be interfered with.

In case, in the meanwhile, fever should set in, which betrays by its character septic causes, generally the demarcation and separation of the mortified part having commenced, or a retention of the secretion of the wound having taken place, the dressing must be removed, the abscess opened, and free discharge of the pus secured; the mortified shreds and the eschars must be removed by means of forceps and scissors. The new dressing is put on in the same manner as the first one.

The impermeable covering of gutta-percha tissue is very essential, and ought never to be omitted, because the drying on and sticking to the wounds of the gauze, stiffened by the imbibed secretions, is always injurious, and may moreover cause, like a scab, retention of the secretion. The discharge may be allowed to dry in the external portion of the dressing, but never on the wound itself.

By the permanent iodoform dressing, the infection, both by the air and by contact, is prevented, and burns of the second degree, as a rule, heal under a single dressing; in burns of the third degree, aseptic separation of the eschar, with but slight secretion, frequently takes place, and even if the latter be not the case, the granulating surfaces heal in a far shorter time, and the cicatrization is smoother, more even, and altogether less disfiguring than in non-aseptic treatment.

In burns and scalds of the face the mode of dressing described will, of course, be impossible; instead of it an iodoform-vaseline ointment (1:20) is employed, and covered with a mask of gutta-percha tissue. The ointment has to be daily renewed, and is always spread on to the thickness of a knife blade.—*London Medical Record.*

Cerebral Abscess from Disease of the Temporal Bone.

MR. BARKER (*Lancet*) takes the position that more facts may be learned regarding localization and treatment of cerebral abscesses from a careful study of the pathology of the causes which produce them than from a search for special nerve symptoms. Especially is this true in cases dependent on disease of the temporal bone, which constitute at least one-third of all cases. Subdural abscesses are, as a rule, found only in very chronic cases, and are very hard to diagnosticate at an early stage with certainty unless by exploratory operation. His observations in the post-mortem room lead him to locate the abscess either over the roof of the tympanum close to the squamoso-petrosal suture, or on the posterior surface of the petrous bone. In some cases it extends from one to the other of these spots. In the first place it may be reached by gouging cautiously through the bone half an inch above and the same distance behind the centre of the bony meatus of the ear. In the second, half an inch behind the centre of the bony meatus. Both operations may be necessary to exclude subdural abscesses; in that case the upper one should be performed first. Encephalic abscesses appear, broadly stated, to be produced in two ways—by a septic inflammation extending from the walls of the tympanic cavity into the substance of the brain and there setting up an inflammatory process in the white substance, or by extension from the middle ear to the dura mater and thence to the cortex of the brain, through a more or less localized lepto-meningitis. Both may start from the same form of inflammation of the middle ear, either with or without caries of its wall and with or without subdural abscess. In the first form there may be a considerable thickness of sound cortical tissue between the surface of the brain and the abscess. The course of the veins along which the inflammation runs is liable to considerable variation, but they usually pass from about the middle of the temporo-sphenoidal lobe either into the superior petrosal sinus, or to the dura mater about the roof of the tympanum, or to the petroso-squamosal suture. Hence he concludes that these abscesses are usually in the middle or posterior part of the temporo-sphenoidal lobe, and that nine-tenths of them would be found to lie within a circle, an inch and a half in diameter, with its centre lying an inch and a quarter above and the same distance behind the centre of the bony auditory meatus.

Abscesses of the cerebellum, he believes to be always found at the outer and anterior part of the lateral lobe, which rests against the petrous bone. These collections, when of ordinary size, are outside the motor areas, and press upon a part of the brain which is very tolerant of stimulation, and the functions of which are still obscure. So there may be no special nerve symptoms to guide, and reliance must be placed on the other general clinical signs. Among these he calls attention to the temperature. There is first a feeling of malaise and drowsiness, with slow pulse, terminating in a sudden great rise of temperature with a single rigor. Then the temperature gradually falls to subnormal, perhaps without subsequent rise. But in his cases the peculiarity was that the subnormal temperature was most marked in the evening. This is so unlike what we are accustomed to see with pent-up septic matter in other localities, when an evening rise is characteristic, that he suggests it may have some special significance in cases of abcess of the

brain. Sluggish but perfect cerebration is in some cases a very marked symptom. Optic neuritis he maintains to be valuable when taken in connection with other symptoms, but apt to be misleading if relied on to too great an extent. —*N. Y. Med. Journal.*

Post-Rectal Dermoid Cyst.

Dr. von Biernacki describes (*Central. f. Gyn.*) a remarkable case which occurred in Professor Guesserow's wards. A post-rectal tumor was diagnosticated, and during labor its nature was made evident by tapping, whereby nearly a pint and a-half of hair and greasy material escaped. Notwithstanding the consequent diminution in bulk of the growth, it still remained such an impediment to labor that perforation was necessary. Convalescence was retarded by suppuration of the cavity of the cyst. Notwithstanding free incisions, pus with a fæcal odor burrowed beyond the limits of the growth, under the right labium majus, the nates, and the vagina. After two months, the patient was discharged cured. Dr. von Biernacki has records of four other cases of post-rectal dermoid cyst.—*British Med. Journal.*

How to Keep Ice from Melting.

It is often a most important matter to be able to preserve ice from melting quickly in the sick-room. Various devices have been suggested for this purpose ; but the most efficient seems to be one proposed by Dr. Julius Stumphf, in the *Allg. Med. Central-Zeitung*. Dr. Stumphf recommends the use of chaff —barley-chaff. He says that a piece of ice placed in a bag, and then in a box or basket containing enough barley-chaff to surround it with a layer of five or six inches thick, will not lose 25 per cent. of its weight in five or six days, in a room, the temperature of which is between 70° and 80°. This suggests an excellent way to preserve various articles of food and drink, as well as ice itself. —*Medical and Surgical Reporter.*

The Antiseptic Value of Roasted Coffee.

Dr. L. Keim writes (*Münch. Med. Wochenschr.*), in recommendation of coffee as an antiseptic, declaring that it not only retards fermentation, but also disinfects by killing the fungi. This power is found not to exist in even a strong solution of caffein, but rather in an ethereal solution of the empyreumatic oil of the coffee, although the experimental proof of this has not yet been adduced. As we already have better antiseptics, infusion of coffee can only be employed when one needs to improvise an antiseptic for use as a prophylactic. For this purpose the powdered coffee is probably more active than the infusion, and the question arises whether the same action can be expected from the former as from the latter. Nevertheless, freshly ground roasted cofee applied to fresh wounds both prevents the development of spores within the wound and offers a useful antiseptic protective against impurities from without.—*Deutsche Medizinal-Zeitung.*

VENEREAL DISEASES.

Gleet.

℞. Ol. santal. flav., ʒ j ; ol. cubebæ, ʒ j ; ol. eucalypti, ʒ j. M.—Twenty drops on sugar, thrice daily.

℞. Bismuthi subnitratis, ℥ ss ; glycerini, ℥ ss ; aq. calcis, ℥ v. M.—To be used as an injection, night and morning.

℞. Liq. plumbi, ʒ j ; acidi carbolici, ♏ vj ; glycerini, ʒ iij ; aq. dest., ℥ viij. M.—As an injection, night and morning.

℞. Hydrarg. perchloridi, gr. ss ;

aq. dest., O j. M.—As an injection, night and morning.

℞. Potass. permanganatis, gr. iij; aq. dest., ℥ viij. M.—As an injection, night and morning.

℞. Zinci sulphatis, gr. xij; cupri sulphatis, gr. vj; aq., ℥ viij. M.—As an injection.

Blisters, iodine, etc., to perineum.

℞. Tinct. cantharidis, ♏ xvj; aq. dest., ℥ ij. M.—One teaspoonful thrice daily.

℞. Tannici glyceriti; ol. olivæ, āā ʒ j. M.—As an injection in the morning.

Sulphates of copper, zinc or iron, gr. j to ℥ j water, as a frequent injection.

℞. Tinct. ferri perchloridi, ʒ ss; tinct. opii, ʒ j; aq., ℥ x. M.—As an injection.

℞. Ferri sulphatis, gr. xij; tinct. opii, ℥ ss; aq. dest., ℥ x. M.—As an injection, thrice daily.

℞. Bismuthi subnitratis, ʒ vj; pulv. acaciæ, ʒ ij; morphiæ sulphat, gr. j; aq. dest., ℥ viij. M.—As an injection, at bedtime.

℞. Cadmii sulphat, gr. x; aq., ℥ vj. M.—Ft. injectio.

℞. Argenti nitratis, gr. j; aq., ℥ j. M.—Ft. injectio.

℞. Zinci acetatis, ↄ ij; inf. matico, ℥ viij. M.—Ft. injectio.

℞. Liq. plumbi subacetatis, ♏ iij; ol. olivæ, ʒ ij; aq. calcis, ℥ j. M.—Ft. injectio.

℞. Zinci sulphat, gr. ij; liq. plumbi acetatis, ♏ xx; aq. dest., ℥ j. M.—Ft. injectio.

℞. Zinci sulpho-carbolatis, gr. vj; aq. dest., ℥ viij. M.—Ft. injectio.

Gonorrhœa in Women.

Professor William Goodell (*College and Clinical Record*):

When a man is infected with gonorrhœa it is, in the majority of cases, not a very serious disorder, although there is a liability to stricture, to inflammation of the testicles, and, in exceptional cases, to gonorrhœal rheumatism, with secondary affections of the heart. But its results in a woman are invariably bad; the inflammation is usually not limited, but creeps upward by continuity of structure, causing salpingitis and extending to the fimbriated extremity of the tubes and to the ovaries. There it usually stops, the ovaries become adherent to the adjacent broad ligament, and the Fallopian tube becomes hermetically sealed and fastened to the ovary. Further than this, there may be absorption of the fimbriated extremity of the tube, so that there is sometimes nothing left of it. Serum and pus collect in the tubes and ovaries, and a constant local pain is felt. A woman rarely returns to her previously good health after an attack of gonorrhœa. There may be exceptions, but they are rare. The woman may temporarily get over the peritonitis, but she does not get over the effects of it. She remains liable to intermenstrual pains, to painful coition, and to constant pelvic pains, which embitter her existence. As far as sterility is concerned, I have no definite data; but some years ago Dr. Emil Noeggerath, of New York, advanced the opinion that a woman who has once had gonorrhœa never afterward conceives. Personally, I cannot recall a case in which a woman bore a child after suffering with gonorrhœa. Strumpets rarely become pregnant, for most of them have had this affection.

What are we to do in these cases of positively ascertained chronic gonorrhœal infection? My own experience would lead me to say that it is always proper, first, to try the rest treatment, with massage, electricity, over-feeding the woman when she is emaciated and anæmic, and giving such medicines as

will build up. Under this treatment the serum may become absorbed, the pus inspissated, and the adhesions partly removed, and the woman may recover sufficiently to become a useful member of society, although she will never enjoy good health. Such partial recoveries, I am sure, I have seen, but in the majority of cases the treatment will fail. Then comes up the question of the removal of the tubes and ovaries. The only objection to this operation is, that often the ovaries are so adherent that their removal becomes very difficult, very dangerous, or even impossible. In most cases, however, we can remove the tubes and ovaries, and the woman is restored to comparatively good health, although, of course, she can never conceive. Still, she could not have conceived before the operation, so that makes no difference. The operation of oöphorectomy, which has been greatly abused, is to me a perfectly legitimate operation when other measures have failed in the treatment of these cases of gonorrhœal infection.

One word about the treatment of the gonorrhœa itself. I do not like to treat these cases, although I sometimes have to do so. The treatment which I should employ would be very early disinfection of the vagina and womb by a solution of the bichloride of mercury. I have the utmost confidence in mercury as a disinfectant and as a destroyer of infection and of septic germs. I have the more confidence in it because I was at first a disbeliever in its powers, and being a recent convert, I am, perhaps, a more violent partisan than I otherwise would be. I should, in such case, not only syringe out the vagina, but should also swab out the uterus with a one-to-one-thousand solution of the bichloride. Further than this, in view of the severity of the disease and of its dire effects, I should dilate the cervical canal and inject a weaker solution of the bichloride (one-to-two-thousand) into the uterine cavity itself, hoping that some of it would possibly find its way into the Fallopian tubes, which are usually dilated.

DISEASES OF THE EYE AND EAR.

The Pupil as a Guide in the Administration of Chloroform.

It is always difficult to determine the exact moment at which a patient is sufficiently under the influence of chloroform for an operation to be proceeded with. The sign of conjunctival reflex action, which is usually relied upon, is very variable and often misleading. Mr. HENRY J. NELSON formulates the following conclusions as a guide in this respect (*British Medical Journal*):

1. The effect produced by chloroform on the pupil is at first dilatation, varying in degree and duration, then contraction as the narcosis becomes profound, and dilatation again when the sensibility is returning. If the administration be still continued, with the pupil strongly contracted and motionless, the pupil will also dilate, but in this case more suddenly and completely, and will be coincident with a state from which it will be difficult or impossible to resuscitate the patient. This latter is the dilatation of asphyxia.

2. So long as the pupil dilates in response to excitation by pinching, etc., the patient is not sufficiently narcotized for the operation to be proceeded with, unless the latter is slight and does not require complete anæsthesia.

3. When the pupil becomes strongly contracted and immobile, no more chloroform should be given until it begins to dilate again. If, then, further anæsthesia be required, a little more chloroform should be given till the pupil again contracts.

4. The occurrence of sickness causes dilatation similar to, but more sudden than, that which happens when sensibility is returning, and the efforts of vomiting have the effect of arousing the patient.

The watching of the respiration and the pulse, which are doubtless the best indications of the effect produced on the individual by chloroform, and, therefore, of vital importance for safe administration, does not in many cases furnish evidence of the state of sensibility, in regard to which he holds the observation of the pupil to be of greatest assistance. The sign usually relied on, namely, the insensibility of the conjunctiva, is by no means a satisfactory test, for in many cases conjunctival anæsthesia is established long before the patient can be said to be under the influence of the drug. By observing the pupil, the administrator of chloroform can tell at once when the effect of the drug is on the wane, because the pupil then begins to dilate slowly. Noticing this, he can, by the administration of a few drops more chloroform till the pupil contracts again, prevent the occurrence of struggling and interruption of the operation. In this way he can keep the patient in the state most suitable for the satisfactory performance of the operation without narcotizing him more than is necessary. The amount of chloroform required to maintain a state of anæsthesia is much less than that required to put a patient under its influence several times, and, as it is admittedly a dangerous drug, the less administered the better, especially in operations of long duration. And by allowing the patient partially to recover, one runs the risk of the occurrence of sickness and vomiting, which is always an awkward, and often a dangerous, accident. In the absence of such a guide as the observation of the pupil, the chloroform is likely to be given in a rather haphazard way, dosing the patient till narcosis is profound, perhaps too much so, then interrupting the operation till the danger is averted by arousing him, or waiting until signs of feeling, such as struggles or a cry of pain, give indication for more chloroform.

The observation of the pupil also furnishes a fair indication of the effect produced by chloroform, its size bearing a constant relation to the state of the blood pressure. In the experiments on dogs the blood pressure in the carotid artery was recorded on charts, and it was found that contraction only occurred when the pressure had fallen considerably, and, on removal of the chloroform, dilatation only took place when the pressure had risen to a certain height. As reduction of the blood pressure was pronounced by the committee of the British Medical Association to be one of the chief dangers in chloroform administration, the presence of a sign by which the occurrence of that important condition can be recognized must be of practical value.

A Refraction Ophthalmoscope.

JACKSON (*Ophth. Rev.*) has endeavored to avoid the disadvantages of the Rekoss disc by placing the lenses in two slides, moving vertically, immediately back of the mirror. These slides do not in the least interfere with the inclination of the mirror, whatever its width. They are moved by pressure of the tip of the forefinger on one of the milled projections at their lower extremities, and a spring-catch, acting on each, secures the centering of the lens at the sight-hole. The size and number of the correcting lenses are, of course, limited.—*N. Y. Medical Journal.*

THE AMERICAN MEDICAL DIGEST.

PART III.

Diseases of Women and Children, and Obstetrics.

THE

AMERICAN MEDICAL DIGEST.

1887.

DISEASES OF WOMEN AND CHILDREN, AND OBSTETRICS.

DISEASES OF WOMEN.

The Abuse of Intra-Uterine Medication.

The following is an extract of a paper by Dr. EMMET, published recently in *N. Y. Medical Journal:*

The various uterine discharges are:

Aqueous, Serous, Mucous, } forming in their combinations { milky, gummy, ichorous,

Purulent,
Muco-purulent,
Sanguineo-purulent,
Bloody,
Bloody with mucus.

Aqueous discharge, which may be slight or abundant, at intervals or constant, bland or acrid; what does it import? With it, especially if it has persisted for some time, we shall find the os uteri slightly open, the lips possibly a trifle everted and somewhat eroded, the cervical substance, in all likelihood, to some degree softened, the crown flattened from pressure upon the floor of the pelvis, the woman complaining of weight about the back, hips, and perinæum, with a sense of heat either forward toward the bladder or low down in the back; even a desire to micturate often, together with, at the first, a tendency to constipation, later on the bowels being too free.

The patient may give the history of having had some febrile movement, but it was slight, did not make much impression; at any rate, there is nothing of it present now; we have but local symptoms to deal with. An accurate observer will not content himself with having noted this much. He can not, from seeing such a discharge, establish a positive diagnosis.

Either he will find the pelvis engorged and tumid, the parts lying about the uterus œdematous and soft, the uterus only slightly enlarged, indicating a condition of recent acute cellulitis or he will recognize that the uterus is enlarged beyond what the patient's history can in any way account for, be she multipara even, with subinvolution and all the attendants on multiple labors, and his mind will of necessity revert to commencing malignant disease of the body; or, again, the pelvic cellular tissue will be intact, the uterus normal, and he will discover an enlargement off to one side, presumably a dilated Fallopian tube which, somewhat constantly or at intervals, discharges its quantum of watery fluid, yet, even failing to find such an

enlargement, the physician must bear in mind that it may have been ; also that another possible source is from ruptured ovarian cysts and cysts of the broad ligaments, or from ascites.

The serous discharge must come in with the past one for its consideration.

Now, with any of these conditions, what would it avail the patient to have the mucous membrane of the uterine cavity cleaned off, and then smeared over with a more or less noxious topical application, the whole to be preceded, no doubt, by the passage over it of a steel instrument called a "sound"?

Think of the possibilities were a solution of iodine, however weak, carried to the fundus of such a uterus, the capillaries large, the lymphatics active, the Fallopian tubes erect with congestion, ready to assume violent inflammation on the slightest provocation. Such is often the result of like ill-judged treatment.

What was in a process of resolution you have arrested on the threshold, and have dammed up fluids which were the expression of the first inflammatory action. Your treatment has intensified the pathological process ; you have been the cause of an effusion of lymph which has now set, and the woman feels better. Of course she does, because the parts which would otherwise be tender by motion are now immovable and everything is one block, so to speak. There is a time to come, however, and that is in the undoing of all this exudation, when the woman is to suffer far more than she could have anticipated, and there is no limit to the pathological developments which your misguided action may have set up.

We will now take up the mucous discharges and see in how far they are indicative of uterine disease, and, on the other hand, in how far they are attributable to extraneous causes.

Probably, of all discharges, these are the most frequent ; we scarcely ever see a woman who says she has a uterus but we find there some amount of mucus much or little, thin or thick, easily removed or viscid and tenacious. All these points must be borne in mind when making up our mind as to its import. In the natural condition, I take it, say in a case which has not presented a single symptom and in which there is no history whatever of any exposure to harm, there will be found a slight moisture of mucus, which is the same as on on any mucous surface, keeping it in proper condition for its normal function. From that on, any increase is abnormal, and it will now depend on our management of the case whether we do away with it scientifically, or whether we increase the amount, the two results depending upon how we interpret the discharge.

Can we say that there is endometritis, and, if so, is it justifiable to attack a part of the mucous membrane, as that of the body, when in fact it may be absolutely intact and require no interference whatsoever ?

To establish in such a case that there is endometritis, we should rather feel positive that we have a decided cause for it and that there is nothing outside which is at the bottom of the ailment, this being merely the symptom.

What in the non-pregnant shall we consider as causes of endometritis ? I say non-pregnant to throw out such cases as arise from sepsis during the lying-in period.

We have violence from accidents or from unjustifiable interference, producing solution of continuity, fissures, lacerations, effects of parturition, and of divulsion ; we have general blood diseases, as the eruptive fevers of syphilis —chancre ; we have, locally, chancroid and gonorrhœa.

Most of these have a history of their own which leads directly to a proper diagnosis, besides following a course which is only for a short time characterized by a mucous discharge passing soon on to the purulent, which for the moment, withdraws them from our notice.

Now where shall we look for an explanation of the presence of the mucus?

Let us refer to the proposition as set forth in the earlier part of this paper, and consider it as we did then the watery discharge in talking of the first resolution of acute cellulitis; let us look upon this as a result of obstructed circulation, and as an effort of Nature to relieve itself, of the vessels to disgorge, and not as a pathological process.

If this is the explanation, should we not have the discharge always as a watery, or, at the most, as a thin mucous flow? Yes, if we always saw the case in its early stage. Later, and as the cause is maintained, the lymphatics, capillaries, and uterine glands, being constantly called upon to discharge fluid, finally are more and more enlarged; the glands become hypertrophied, and then the material becomes more and more thickened, even to the point of being held in the mouths of the glands, constituting the gummy, tenacious mucus with which we have all had our struggles.

By this time the glands may be said to be diseased, and a probe passed over them will even produce bleeding; but they are still diseased as a sympton, and will resume their natural functions once the disturbing cause is removed. They are diseased, and we have endometritis or endotrachelitis, and it may also call for treatment, but it is to be borne in mind that it is only as a secondary effect; otherwise the main factor will be overlooked, and the condition will prove intractable or yield only as time has removed the original cause; or, perhaps, as the treatment adopted for the one may by chance have hit at the other, or, again, as in our effort to cure the endometritis by heroic means we may have destroyed the very surface on which the disease has rested, even though, by so doing, we have introduced a still more dreaded element of trouble.

How is it with any one of say a dozen other affections of the uterus or surroundings which are causes of a mucous discharge from the uterine canal, all acting in the same manner—viz., by obstructing the circulation?

Take an anteflexion, congenital or congestive. In the first we must not lose sight of the fact that, although congenital, yet the longer it lasts the more it partakes of the congestive or acquired type, so that we have the symptoms indicating the two forms running together.

In early girlhood—that is, when menstruation is first established—we have an anteflexion from simple disproportion between the body and cervix, and it will not be attended by any mucous discharge; it will require but few menstrual epochs, however, before this symptom will appear, and we have then a congestive condition ingrafted upon the simple primary deformity, and such a condition will remain even after the canal has been straightened by operation.

If long persistent, the glands in this case also have become so accustomed to discharge that they are hypertrophied and give out a viscid mucous. This will require attention, even though the forerunning congestion be already overcome; but I think it will be fully recognized how irrational would be the treatment of the uterine mucous membrane in the first instance.

Now, to take up some other of the

more frequent diseases attended by this same mucous discharge, or, preferably, just to mention them. Consider anæmia and chlorosis ; look at versions choking off the return of blood ; fibroids bringing an additional supply of blood to the organ and attended by this same symptom from engorgement ; polypi acting as foreign bodies within the canal and setting up the leucorrhœa.

One of the most frequent conditions presenting this symptom, and which often escapes detection, is that of laceration of the cervix uteri. Not such a laceration as any tyro would recognize at a glance, but a concealed laceration —one which has extended, perhaps in the first instance, through the os externum, but which is now only apparent within the canal, the outer os having healed even so as to appear as if the woman had never borne a child nor had a miscarriage. Such lacerations are much more common than is generally supposed, but, being concealed, must be looked for. Naturally such a lesion produces a pouch, and this remains filled with white-of-egg mucous. Remove it as often as we will, and make what application we will to the walls of the cavity short of destroying them, the discharge will reappear and will baffle all our attempts to overcome it. There is no endometritis, except the secondary form of enlarged glands, discharging from habit. Yet those cases pass from one to another, and go year after year through the same course without the true lesion being recognized ; many and many the uteri which have been made to bear simple and compound applications for a fault which was not theirs, and then without even the little satisfaction of having contributed to a cure of the other part. Naturally enough, no cure can be effected in such a case until the canal is opened up, its edges are pared uniformly, and the lips brought togther in nice apposition. We see the same condition exactly when the original operation for repair of a deep laceration has been imperfectly performed, and we see many such—a worse condition fastened on the woman than was her lot before, as this abundant discharge most surely engenders anæmia and chlorosis, followed by an impaired constitution and possibly phthisis.

The purulent discharge is most commonly seen also in old cases of injured cervices, where a laceration has extended pretty well into the tissue of the cervix, and the surfaces thus exposed, which are similar to those in granular lids, have continued to generate pus from the date of the initial lesion. Be it understood this is the case, other circumstances favoring it—namely, impaired constitution, anæmia, subinvolution, prolapsus, etc.

It is precisely because of these cases being so common, and their treatment being so self-evident, that we are in danger of error by overlooking other conditions which are simulated by it or which it masks—for instance, a venereal ulcer situated high up in the uterine canal. The discharge will be the same, but how much benefit will attend the true disease if we are directing our attention to the supposed surgical lesion of the uterine canal? And the very application which would prove serviceable in the one case—viz., nitrate of silver or acid nitrate of mercury—we would strenuously shun in the other.

Again, with an old laceration and subinvolution, the uterine canal containing pus, the same treatment pursued as indicated above ; no improvement ; recurrent attacks of pain and febrile symptoms, when a more perfect examination leads us to an old pelvic abscess or a chronic oophoritis which is

discharging its contents by the Fallopian tube, and so through the uterine canal.

Now, to conclude, pelvic disorders in general have as a common sympton a uterine discharge, more often cervical than corporeal, due to the level on which pelvic inflammations usually are —namely, the cellular tissue of the floor of the pelvis.

This condition is too often considered as the disease, and is treated as such, as evidenced, beyond what has been said above, by the practice of some who will even dilate the cervix and inner os for the purpose of making applications when it is self-evident that, if there is any disease in the canal, the os internum will be patulous and the canal perfectly free.

Intra-uterine applications, if misdirected, not only fail to do good, but are harmful. Witness the average time of getting patients well, which is considerably shorter, not using intra-uterine treatment, thus avoiding relapses due to our own misjudgment.

Endometritis is not the common ailment that the daily talk of it would lead one to suppose.

The Ætiology of Salpingitis.

MARTIN (*Ctrlbl. f. Gynäk.*), in a communication to the gynæcological section of the *Versammlung deutscher Naturforscher und Aerzte*, reports the results of his observations in 287 cases of diseased Fallopian tubes. In over one-half of the number the inflammation simply began in and extended directly from the uterus; of the other half, fifty per cent. were of puerperal origin, five-sixths were due to gonorrhœal infection, and one-sixth to tuberculosis. The left tube was alone affected in 138 cases, the right in 58, and both in 91. Two forms of salpingitis are clearly distinguishable, *endosalpingitis interstitialis* and *endosalpingitis follicularis;* in the former variety the muscular coat of the tube is extensively involved, and eventually its peritoneal covering is affected, the epithelium and fibers being more or less destroyed; in the latter the entire wall is filled with numerous "follicular spaces," similar to those in the *portio vaginalis.* Secondary contraction of the inflamed parts results in the closure of the distal opening of the tube and the formation of characteristic sacculi. The entrance of micro-organisms (of puerperal sepsis, gonorrhœa, tuberculosis, or actinomycosis) is followed by suppuration. There is no peculiar pain characteristic of tubal disease, nor is menorrhagia a constant symptom. The prognosis is not so gloomy as it has been represented; the inflammation may subside and a perfect cure follow, so that the patient subsequently becomes pregnant. If palliative treatment is unavailing, " and the symptoms are very severe, an operation is justifiable." Martin has operated sixty-two times. [This paper is a most instructive one, representing as it does the unbiased opinions of a prominent gynæcologist, who occupies a conservative position with regard to a question which has provoked a somewhat heated controversy. His calm, scientific manner of treating the subject cannot fail to add force to the deductions which he draws from carefully observed anatomical facts.] — *New York Medical Journal.*

Removal of the Ovaries for Neurosis.

SCHROEDER (*Ibid.*) speaks authoritatively on this question as follows: When the ovaries are diseased, there is no question as to the propriety of removing them; when it is necessary to extirpate them in order to anticipate the menopause, the presence of disease is a side

issue—the purpose of the operation will be attained whether they are normal or abnormal. Hegar, on the contrary, insists that the organs, "or other parts of the genital canal," must be the seat of pathological changes in order to justify the operation. We are ignorant to what extent neuroses are dependent on actual disease of the ovaries; serious nervous disturbances may disappear completely after the menopause (natural or artificial) in patients whose ovaries appear to be healthy. We do not, in fact, know how to draw a sharp line between the normal and the pathological. It is certain that neuroses may exist in patients with healthy glands, and, furthermore, that the women are cured by removing them.

The Surgical Treatment of Subinvolution.

DR. A. PALMER DUDLEY, writes in the *New York Medical Journal* as follows:

These patients were at once put upon the use of hot vaginal injections twice daily. If there was cystic degeneration of the cervix, all of the cysts that could be reached were tapped. If the os and cervical endometrium were granular, appropriate treatment for it was given; and applications of Churchill's tincture of iodine to the cervix and vaginal roof, together with glycerin tampons, were used in some cases as often as every other day. That this method of treatment was beneficial no one for a moment could doubt, but it did not cure my patients. It did not relieve the weight and dragging pains, or do away with the foul leucorrhœal discharges of which the patients had so long complained.

After each patient had been kept under this form of treatment for a certain time, she was put under an anæsthetic, and the depth of the womb carefully noted. If menorrhagia had been her habit, the cervix was rapidly dilated and the endometrium carefully but thoroughly curetted with Bozeman's curette, and then touched with a 1 to 2,000 solution of bichloride of mercury, wiped dry and again touched with glycerite of carbolic acid. Many prefer the use of Churchill's tincture of iodine for this purpose, believing it more efficacious in preventing a return of the fungosities; but, in cases where the cervix is to be operated upon, the use of the iodine is disadvantageous on account of its discoloring the parts and rendering the operation more difficult. After this treatment of the endometrium, if the cervix was lacerated, I operated for its closure after Emmet's method, going deep into the angles of the laceration. If the cervix was not lacerated, I operated after the following manner: I steadied the cervix with a heavy, curved tenaculum, and with a pair of sharp, narrow-bladed scissors, I made a deep, narrow, V-shaped incision in each side of the cervix, extending the incision, if possible, deep enough into the uterine tissue to sever what we ordinarily style the circular artery. Then, after letting the incision bleed quite thoroughly, I closed the wound by passing sutures from without inward across the incision, taking care that the first sutures ligated the several vessels. After the operation, warm water vaginal injections were used for cleanliness only. If the uterus was retroverted, a pessary was fitted and allowed to remain in position while the wound was healing.

Stem-Pessaries.

DR. PAPIN read before the St. Louis Obstetrical and Gynæcological Society the following:

I have here a pessary, a ring supported by a stem, which I removed from a young woman whose history is rather

interesting. Some fifteen or sixteen years ago, when she was but seventeen years old, a red-headed, hot-tempered Irish girl, with more nerve than muscle, she undertook to move a kitchen stove which two men had refused to move because it was too heavy. She succeeded in moving one end of the stove and twisting it around, and at the same time her womb came out into the world through the hymen and all. I saw her shortly afterwards. I performed an operation which was then recommended, and replaced the womb. She married with a complete procidentia. The womb was pushed back on all proper occasions and she became the mother of three or four children. She had the most terribly lacerated os uteri I ever saw. The neck of the womb was two and a half inches long and it was terribly torn. I brought the parts together and measured it as well as I could. She is now pregnant four months, and feeling some discomfort and inconvenience from the child not yet being large enough to keep the womb in position, she got this machine and put it in herself. She has used almost every pessary that has been invented. This was something new and it struck her fancy, and she bought it and wore it twenty-four hours, I think. When I saw the patient the neck of the womb was strangulated and cold. She was already feeling the motions of the child above. I found that it must be removed and speedily, so I sawed the pessary through with the assistance of Dr. Newman and Dr. Papin, Jr., and we contrived to slip it off, scratching and tearing the parts almost to pieces. Both these assistants have had considerable experience, and both of them concluded that she would miscarry that night, but she has not miscarried so far ; on the contrary, she is doing very well. The parts were returned to their natural position, and with the exception of the scratches which I made in sawing the pessary through, no injury has been done. —*Obstetrical Gazette.*

The Division of the Cervix Backward in Some Forms of Anteflexion of the Uterus with Dysmenorrhœa and Sterility.

Dr. H. P. C. Wilson, of Baltimore, read a paper before the American Gynæcological Society, on the subject recently, in which he advocated the adoption of this procedure in the following classes of cases :

1. Those of anteflexion of the uterus with elongated and indurated cervix, when the body is bent upon the neck, or the neck upon the body, or when they are bent upon each other, thus forming a more or less acute angle at the internal os.

2. In such acute anteflexion as when the cervix is hypertrophied, blue as a mulberry, and its tissue dense, almost like cartilage.

3. Those cases in which at the internal os the encircling band gives to the finger the feel of a strong cord between the neck and the body.

In the cases of anteflexion when the knife should be used, all the above lesions are coincident, with more or less diseased Nabothian and utricular glands and diseased mucous membrane, all of which must be cured by proper after treatment. He regards the cut as no more dangerous, when made with proper precaution, than when made elsewhere in the body, and believes it to be the most efficient method of rectifying anteflexion of the uterus. The patient should be allowed to thoroughly recover from the operation before any intra-uterine medication is begun, and then the best consists in the local use of Churchill's tincture of iodine. The patient should

keep quiet in bed for two weeks, with almost no treatment, after which manipulation exceedingly gentle, with sound dilatation, etc., may be resorted to for the purpose of keeping the canal open sufficiently.—*N. Y. Medical Journal.*

Potassium Permanganate in Amenorrhœa.

DR. BENJ. MARSHALL, writing to the *Therapeutic Gazette*, says: My conclusions after using it in about fifty cases are as follows: 1. It acts with certainty in about seventy per cent. in selected cases. 2. It may be given at any time, but preferably one or two hours after eating, as it is not so apt to sicken the stomach. I don't think it is any more efficient when given on an empty stomach. 3. I have used the sulphate in a number of cases with less certain effect; the result attained, however, may have been accidental. 4. In most cases it produces an exhilaration of spirits. 5. It has a decided tonic effect. 6. It will become an indispensable therapeutic agent. 7. Its disagreeable effect on the stomach is best relieved by a combination of cerri oxalat., gr. i; cocaine hydrochlor., gr. $\frac{1}{6}$; bismuth. subnit., gr. v; pulv. ipecac., gr. $\frac{1}{60}$. M. Ft. cachets, one every two hours.

Staffordshire Knot.

MR. TAIT makes the tie to constrict a pedicle in two equal parts, as follows: He employs an awl-like needle, with an eye near the point, and threaded with the ligature, to transfix the pedicle at its middle. As soon as the eye appears on the distal side, the ligature is seized and pulled upon while the needle is withdrawn, and entirely cleared. Now there is a loop on one side of the transfixed pedicle and two free ends on the other. The next step is to pull upon the loop until it is long enough to pass over the tumor or collapsed ovarian cyst; then one of the free ends is passed through the loop, and the two ends pulled upon till the loop is shortened and made to encircle the halves of the pedicle at the line of transfixion.—*St. Louis Medical and Surgical Journal.*

Colpo-Hysterectomy.

DR. FUNKHOUSER presented a uterus removed thirteen days ago, according to Schroeder's method, *per vaginam*—a colpo-hysterectomy. About the middle of June he was called to see a woman who was suffering considerable pain. Examination showed the case to be an epithelioma, of the cauliflower type, of the neck of the uterus. The patient was advised to undergo an operation for the radical cure, if such there be, of this disease. She finally consented, and the operation was performed two weeks ago. The patient was a mulatto, 29 years of age. It is remarkable that the disease should occur in the negro race, not so remarkable that it should occur in a person of mixed race. Her age, 29 years, was also very unusual. The operation was performed according to the method of Shroeder, the patient being anæsthetized and placed in the lithotomy position. Just at this time there is considerable discussion in regard to the utility, advisability and practicability of this operation. Some consider that it is merely for the time being a relief, that sooner or later the disease is bound to return.—*St. Louis Medical and Surgical Journal.*

Intra-Uterine Disinfection.

Although the whole medical world has reason to thank Koch for the announcement of his discovery, in 1881, that a solution of bichloride of mercury, of the strength of 1:1000, was absolutely fatal to the hardiest forms of microbes and their spores, and while

this antiseptic agent has given brilliant evidence of its efficiency in obstetrics, it has not, unfortunately, shown itself to be the ideal disinfectant, fatal to the infecting parasites, but innocuous to their host. It is now clearly proven that the danger of fatal poisoning after the use upon absorbent surfaces of a solution of the strength already mentioned is by no means slight.

Having employed it extensively, and seeing no bad consequences, Carl Braun, of Vienna, recommends that a solution of thymol, also 1:1000, be substituted for corrosive sublimate in intra-uterine injections, not only directly after delivery, when the danger of absorption and poisoning is, of course, greatest, but also later in the puerperium in those cases in which there is decomposition of retained fragments of the placenta, or membranes. In such cases the uterine walls are scraped with a curette, the thymol solution is injected, and a bougie of iodoform is inserted into the cervical canal, this plan of treatment giving the most excellent results.—*Medical News.*

A Preliminary Report on Electrolysis; with Special Reference to its Trial in Inflammatory Products in the Female Pelvis.

DR. JAMES HENDRIE LLOYD (*The Polyclinic*):

During the past spring the writer began a series of exact clinical observations upon electrolysis in the human body. The object was to determine: (1) the utility of the process at all; (2) the disease in which it was applicable and useful; (3) the best methods of applying it with precision; (4) the current strength—*i. e.*, the greatest potency with the least pain and damage. The observations were intended to be entirely clinical, because (1) it was considered that the theory of electrolysis was sufficiently established without further experimental proof, and (2) it did not appear after some reflection, how experiments on other tissues, or the lower animals, would give us any facts which could not be as well observed in the diseased tissues of the human body. The doctor states that on account of the scarcity of material the present account is preliminary to a report which the writer hopes to make at a future time.

It may be well to remind you that electrolysis is the breaking up of a fluid, or substances held in solution, into its constituents, by the passage through it of an electric current. Thus, water is resolved into hydrogen and oxygen, as may be readily observed upon passing a mild current through a tumbler of this fluid. In compound fluids, or salts, the acids seek the positive while the alkaline bases go to the negative. The subsequent chemical actions of these acids and alkalies are just the same as would be the case if they were introduced from without, and constitute the secondary actions of electrolysis. These changes are in exact quantitative relation to the strength and duration of the current—that is to say, with so much current-strength continued a certain time (or, technically, with so many *coulombs* of electricity), just so much hydrogen, oxygen, or whatever the simple atoms or compound radicle may be, will be liberated. In such a simple fluid as water the figures of this problem are exactly known, but in such a complex, organized series of tissues and fluids as exist in the human body (while doubtless the changes are just as constant and according to law), the figures are not known, and may never be. It is, of course, understood that the galvanic current is here referred to, as induction-currents are without practical electrolytic effects. In addition

to these true electrolytic effects there are other effects, both physical and physiological, which are important to be understood. First of these in importance is the so-called "electrical osmosis," formerly called the cataphoric action of electricity. Dr. Amory, in his recent work on Electrolysis, lays great stress upon this action. When an electric current is passed through two fluids separated by a porous septum the fluid itself will pass in the same direction as the current, *i. e.*, from the positive to the negative. This is demonstrated outside of the human body. Dr. Amory speculates that thus nutrition is affected, the parts being literally robbed of their pabulum by the osmosis, or flow, of nutrient fluids toward the negative pole. But, theory aside, we have an array of clinical facts —fortunately accumulating—that there is a decided resolvent action in the electric current, both upon normal and abnormal tissue. This may, or may not be strictly according to the known facts of electrolysis or osmosis. It is probably partly because of them, and partly because of other factors regulating the vascularity and nutrition of the parts, which are but little understood. The chief observers of exact facts have been Cinicelli, who studied aneurisms; Dixon Mann, who studied the quality and quantity of clots formed in blood by an electric current; Duncan, who has cured many cases of nævus by galvano-puncture; and Fox and Hardaway, who have removed supernumerary hairs by the current. In addition, we have Newman and Bruce Clark, who report, especially the latter, such candid and exact details of electrolysis in the cure of stricture, that we are scarcely permitted to doubt; Mundé, who empirically and without sufficient detail, reports success in inflammatory products in the female pelvis; Engelman, who has removed a uterine fibroid with very strong currents; Kelsey, who has cured hemorrhoids, and Reeve, who uses electricity as a reliable emmenagogue.

Conditions of Observation.—The series of cases upon which this paper is based was chosen because of the comparative ease of observation (most of the phenomena being readily accessible,) and, also, because of the importance and general prevalence of inflammatory, vascular, neuralgic and functional lesions in these parts. These cases all had a history of cellulitis, followed, probably, by the state of relaxed circulation so well described by Emmet, and characterized still further by neuralgic pains in loins, abdomen, ovaries and limbs, while the menstrual epoch was usually deranged—dysmenorrhœa being especially prevalent, with leucorrhœal discharges in the interim. Touch revealed in all these cases more or less fibro-plastic deposit, causing pain on pressure and more or less fixation of the womb. The *disadvantages* of this series of cases were, chiefly, that the application of electricity had to be made through mucous membrane (which, undoubtedly, must diffuse some of the current to surrounding parts), that some of the most urgent symptoms were subjective (and, therefore, not always reliable guides), and, finally, that the vascular condition would vary from day to day or week to week, and tend to confuse the observation of the permanent effects, if any, upon the adventitious products.

The Method.—The patients were put in the dorsal position, and, first, the negative electrode was introduced into the vagina and well against the point of apparent greatest deposit. This negative electrode was at first cylindrical in

form, about 1½ inches long and ½ of an inch in diameter, nickle plated and fastened upon a flexible insulated stem about 8 inches long. The nickle-plated end was covered with absorbent cotton thoroughly soaked in warm water. Later the cylindrical form was substituted by a smaller olive shaped electrode, also nickel plated and covered with absorbent cotton; this was done in order to concentrate the current more effectually. The circuit was completed by applying a large flat sponge positive electrode to the abdomen. The position of this electrode was changed at times, according to circumstances; where there was much ovarian pain it was put over the ovary; where there was lumbar pain, over the lumbar region, etc. The polarity was never changed. The cells used were the blue stone cell, known as the Siemens-Halske modification of the Daniel. The number of cells was not usually noted in the reports, as the current strength was taken entirely by a galvanometer, which was kept in circuit as desired. This galvanometer was made by Flemming, and was guaranteed by him to be an accurate clinical instrument. It is vertical, graduated in milliampères, and patterned, in the main, after the Hirschmann instrument. The lowest strength used in these cases was 6 milliampères, the greatest strength was 24 milliampères. These extremes were used only occasionally—the greatest strength, in fact, but once, and then inadvertently and with the effect of cauterizing the mucous membrane. The average strength used was about 14 milliampères. The duration of treatment was almost invariably 10 minutes; in some exceptional instances the treatment was continued to 15 minutes. The vaginal electrode was occasionally shifted about or passed, firmly pressed upon the mucous membrane, from one side of the vagina to the other. The *immediate* effects of these applications upon the patients were almost *nil*. No complaints were made of pain, except by one patient in whom there existed almost a vaginismus, and who suffered from the introduction of the instrument rather than from the current. Even in the instance when the mucous membrane was destroyed by a too powerful current no complaint was made of pain, and, in fact, the accident was not discovered until the following day.

DISEASES OF CHILDREN.

The Treatment of Thread Worms in Children.

DR. SYDNEY MARTIN writes as follows to *The Practitioner:*

The complete cure of thread worms in children is often very difficult. While the ordinary methods used, such as rectal injections of salt and water, infusions of quassia, and other remedies, do good for a time, yet they often fail to relieve the attendant symptoms of "worms," symptoms usually very irregular, and in some cases severe, in character. In many cases, though the irritation about the anus is relieved by injections, the irregularity of the bowels and the disturbance of sleep remain the same. This is probably due to the fact that the habitat of the worms is higher up in the large intestine, where no remedy introduced by the rectum can reach them.

In many cases I have found that rhubarb in small doses brings away large numbers of worms, and at the same time regulates the bowels, so that the use of injections may in most cases be dispensed with. The formula which I have found most useful is as follows, varying slightly with the age of the

child: ℞. Tincture rhei, ♏iij; magnesii carbonatis, gr. iij; tincturæ zingiberis, ♏j; aquam, ad. ℥ j.

This is to be taken twice or three times daily, according to the effect on the bowels. Whether the rhubarb acts as a vermicide or simply by "moving the worms on," I am unable to say.—*Medical News.*

How to Administer Cod Liver Oil to Infants.

DR. YELDHAM (*Medical Record*) says:

Let the nurse dip the end of her finger in the oil and put it in the child's mouth, and it will be sucked off with avidity and pleasure. This may be repeated five or six times in the twenty-four hours. He says it never disagrees with the child, and can be given to the youngest infant with great advantage.

Diagnosis of Infantile Diseases.

In a recent number of *L'Union Médicale du Canada*, Dr. BRADLEY gives the following summary of points on the diagnosis of diseases in infants:

1. Congestion of the cheeks, excepting in cases of cachexia and chronic disease, indicates an inflammation or a febrile condition.

2. Congestion of the face, ears, and forehead of short duration, strabismus, with febrile reaction, oscillation of the iris, irregularity of the pupil, with falling of the upper lids, indicates a cerebral affection.

3. A marked degree of emaciation, which progresses gradually, indicates some sub-acute or chronic affection of a grave character.

4. Bulbar hypertrophy of the fingers and curving of the nails are signs of interference in the normal functions of the circulatory apparatus.

5. Hypertrophy of the spongy portions of the bones indicates rachitis.

6. The presence between the eye-lids of a thick and purulent secretion from the Meibomian glands may indicate great prostration of the general powers.

7. Passive congestion of the conjunctival vessels indicates approaching death.

8. Long continued lividity, as well as lividity produced by emotion and excitement, the respiration continuing normal, are indices of a fault in the formation of the heart or the great vessels.

9. A temporary lividity indicates the existence of a grave acute disease, especially of the respiratory organs.

10. The absence of tears in children four months old or more, suggests a form of disease which will usually be fatal.

11. Piercing and acute cries indicate a severe cerebro-spinal trouble.

12. Irregular muscular movements, which are partly under control of the will when patient is awake, indicate the existence of chorea.

13. Contraction of the eye-brows, together with a turning of the head and eyes to avoid the light, is a sign of cephalalgia.

14. When the child holds his hand upon his head, or strives to rest the head upon the bosom of his mother or nurse, he may be suffering from ear disease.

15. When the fingers are carried to the mouth, and there is, besides, great agitation present, there is probably some abnormal condition of the larynx.

16. When the child turns his head constantly from one side to the other, there is a suggestion of some obstruction of the larynx.

17. A hoarse and indistinct voice is suggestive of laryngitis.

18. A feeble and plaintive voice indicates trouble in the abdominal organs.

19. A slow and intermittent respiration, accompanied with sighs, suggests the presence of cerebral disease.

20. If the respiration be intermittent, but accelerated, there is capillary bronchitis.

21. If it be superficial and accelerated, there is some inflammatory trouble of the larynx and trachea.

22. A strong and sonorous cough suggests spasmodic croup.

23. A hoarse and rough cough is an indication of true croup.

24. When the cough is clear and distinct, bronchitis is suggested.

25. When the cough is suppressed and painful, it points toward pneumonia and pleurisy.

26. A convulsive cough indicates whooping-cough,

27. A dry and painless cough is sometimes noticed in the course of typhoid and intermittent fever, in difficult dentition, or where worms are present.—*London Medical Record.—Journal Amer. Med. Assoc.*

Entero-Colitis.

DR. S. C. SMITH (*Progress*):

Treatment.—"An ounce of prevention is worth a pound of cure," says the old proverb, and it is peculiarly apropos here. First, then, comes the good old medical and surgical maxim, which stands as the corner-stone of the healing art—

1. *Remove the Cause.*—Transport the little ones from the foul air of the city to the country, where they can enjoy the salubrious breezes, the songs of the birds, and the pure healthy milk that reddens the bronze cheek of the rollicking farmer's boy.

2. Bathing, with lively friction of the skin, cleanliness, which is said to be "next to Godliness," must be inculcated and practiced. Accustom the child to the contact of pleasantly cool water in hot weather, till he will laugh and carol and splash in the sparkling liquid like a joyous little naiad.

3. Proper food, nutritious and pure, in reasonable quantity, and at judicious intervals. No stuffing, no starving, but observe a just medium only. Healthy breast milk for the first year or eighteen months; milk principally after weaning, peptonized for weak, delicate children, and after the teeth are all cut to be gradually accustomed to ordinary food.

4. Pure fresh water is as necessary for a healthy infant as for the adult, and even very young infants take it with avidity, and show that they are all the better for it. Pure wholesome air, free from the taint and odor of putrefying animal and vegetabe matter is absolutely required. When old enough let children have free exercise in the open air, or, if too young to run and jump and play, take them out in a baby carriage, or otherwise, morning and evening in summer, and even in winter, sufficiently protected with warm clothing. The chemico-vital influence of sunlight should not be forgotten or ignored in summer or in winter, being as necessary to the growing child as to the growing plant.

5. The normal state of a young and healthy infant during the first few months of its life is to spend at least two-thirds of its time in sleep, and if an infant is fretful, restless, and sleepless, be sure there is something wrong. The cause of it should be diligently searched for, found, and removed rather than resort to paregoric, catnip, and soothing syrup. "Tired nature's sweet restorer, balmy sleep"—is a *sine qua non* for all infants.

Stimulants are exceedingly useful, if signs of weakness or exhaustion appear, but they must be selected and administered with great care and judgment. Common whisky obtained from the bar-rooms and liquor dealers will prove

more surely fatal to infants than the diarrhœa. The vile artificial mixtures sold as old port and sherry are equally injurious. The vin. mariani, if to be had, is a great boon in these cases. Old cognac brandy, when it can be obtained pure, will assist in saving the life of many a child suffering with this disease. Brandy and egg mixture forms a valuable resource in these cases when purging is severe and exhausting and fever high. High temperature in these cases so far from contraindicating stimulants emphasize the urgency for them, for it is precisely in these cases that symptoms of collapse and exhaustion occur the earliest. External stimulants, as the mustard bath and hot bottles, are indicated in cases where early failure of strength is marked, and in addition an important measure is to secure cotton batting over the abdomen with a flannel roller, and let it remain till the child is better. Keep the air of the room pure and well ventilated, all excreta or soiled napkins to be immediately removed out of the room. If the temperature is over 103 in the rectum, a tepid bath should be given after every stool. This has a most important effect in reducing both the temperature and the number of actions.

A stimulant should be given before bathing, and the child should be placed between blankets after the bath, and a warm brick or iron kept at the feet. These preliminary measures, and also as accompanying the treatment with the medicines required, are essential to the success of the treatment with the latter. In the initiatory stage of many, or most cases of this disease, the early administration of mild laxative containing castor oil and spiced syrup of rhubarb, with a little soda, will frequently remove at once the bad symptoms, change the color and character of the actions, and if followed by a mixture of bismuth, aromatic chalk powder with paregoric or opium, will often arrest the disease. The following is a favorite formula with the writer, and proved very successful during the last summer. For children from one to two years of age: ℞. Bismuthi subnitratis, cretæ preparatæ, āā. ʒ ij; pepsini saccharati, ʒ j; pulv. acaciæ, ʒ ij; glycerini, ℥ j; tr. kino, ℥ ss; aq. cinnam., aq. puræ, āā. ℥ iss; tr. opii. deodoratæ, gtt xx. M. S. Teaspoonful every three or four hours. The proportion of tr. opii. to be increased or diminished according to age. Sulphuric acid, gallic acid, tannic acid, and acetate of lead, I only mention to say they are more harmful than beneficial. The best of the list of astringents, are kino, hæmatoxylon opium, rhatary, catechu, etc. Only one of this list is available, or of much service when much fever attends, and that is kino. As a rule none of the astringents are effective if high fever exist. In cases of violent vomiting I have seen the best results follow the administration of the following given ice cold: ℞. Vini. ipecac., ʒ j; tr. nucis vom.; gtt xx; tr. opii. deodor., gtt xx. M. Shake well.

S. Give five drops after every act of vomiting, and apply a belladonna plaster to epigastrium. When the colon and rectum are inflamed and tormina and tenesmus are distressing, an oleaginous mixture containing gum acacia, glycerina, ol. resini and tr. opii. deodor. may be given every hour till it acts and changes the color and character of the stools, and then follow by injections of, say, ipecac, five grs., tr. opii, three or four drops, according to age, in starch made thin, and given after each action till checked.

The convalescence from this disease must be carefully watched. The digestive powers are enfeebled and much

impaired, and therefore nature is to be assisted by the exhibition of tonics combined with pepsin and pancreatine. I am aware of the theory that pepsin digests only in an acid solution, and that pancreatine can only emulsify fats in an alkaline medium, but the fact remains that milk partly digested by the action of pancreatine and pepsin, is certainly more easily digested, and is equally, if not more nourishing to a delicate convalescent infant than milk not so peptonized. The following receipt has often given great satisfaction as a tonic and digestive in these cases. For three years of age: ℞. Acidi nitro. mur. dil., miij; quinidiæ sulph., grs. ss; aquæ destil., ʒ ij; pepsini porci, grs. iij; liq. strichniæ, gtt. ¼. M. S. Give the above before each meal three times a day. A raw meat diet is highly commended in obstinate cases. In the rapid, choleraic, and collapsing forms, hypodermic use of morphia and atropia, followed by energetic stimulation, often act in a most wonderful manner, sometimes rescuing an infant from the very jaws of death.

OBSTETRICS.

The Alternatives to Craniotomy.

Dr. Robert Barnes thus concludes an article in the *Brit. Medical Journal.*

In conclusion, let me submit the following summary of the arguments set forth:

1. The legitimate aspiration and tendency of science is to eliminate craniotomy on the living and viable child from obstetric practice.

2. The advance of hygienic rule, the improvements in the forceps, in turning, in the induction of labor, and in obstetrics generally, have materially curtailed the field within which craniotomy can be justifiable.

3. In the most extreme degrees of pelvic distortion, where delivery *per vias naturales* can only be effected with doubtful success to the mother, Porro's operation is the legitimate alternative for craniotomy, it being understood that the opportunity of inducing abortion has gone by.

4. In less advanced degrees of pelvic contraction, but still incompatible with the delivery of a living child *per vias naturales*, the opportunity of inducing abortion having gone by, but in which craniotomy would effect delivery with strong presumption of safety to the mother, the Cæsarian section may be a proper alternative for craniotomy. This is the most debatable point.

5. In the minor degrees of contraction, say from three inches to three and a half or three and three-quarters inches, the opportunity of inducing labor having gone by, the far greater safety to the mother obtained by craniotomy, and the prospect of living children in future pregnancies by inducing labor, make craniotomy the proper course to adopt.

6. In other emergencies than deformity, as in obstructed labor from ovarian tumors, the alternative to craniotomy is to remove the tumor.

7. In cases of immovable tumors, Porro's operation is the proper alternative.

8. In rupture of the uterus, the child being delivered or not, Porro's operation is the proper alternative. There the interests of mother and child coincide.

9. In cases of disease or tumors of the uterus obstructing delivery, Porro's operation is the proper alternative.

10. In atresia of the cervix or vagina, Cæsarian section or craniotomy may be

necessary; but incisions and gradual dilatation will more frequently be the proper alternatives.

11. When obstruction is due to hydrocephalus or dropsy in the child, embryotomy or tapping is indicated. When the child is dead, embryotomy is indicated, and decollation when the child is impacted, and turning is hazardous.

12. In convulsions and hemorrhages, the proper alternatives for craniotomy are found in the more scientific methods of conducting labor under these complications.

Lastly, the dream of Tyler Smith, the abolition of craniotomy will be fully realized only when hygiene shall have triumphed over disease and deformity. —*Medical and Surgical Reporter.*

Relaxation of the Perineum and Vulva during Confinement.

DR. AUVARD concludes an article:

Conclusions.—What practical deductions may be drawn from what has preceded? Should a physician, attending a woman in confinement, rely upon the bag of waters and upon the fœtal portion presenting to effect the dilatation of the perineum and the vaginal orifice, or should he endeavor to give assistance by means of manipulation? We have only a choice between natural distention, spontaneously affected by the fœtus impelled by the utero-abdominal contractions, and the method of præ-fœtal dilatation. Now, we believe the accoucheurs of Paris are pretty unanimous upon this question. Save some exceptional cases where such measures may be safe, and among them that of M. Dumas is certainly one of the best, it is preferable to leave to natural forces the detension of the soft parts of the mother, the attendant combating, on the one hand, over energetic contractions of the uterus and abdominal walls, and giving assistance, on the other, by application of forceps or by manual traction, if their action is too feeble. With the eminent professor of Montpellier, we believe one can never reckon upon the bag of waters, its action being eminently serviceable for dilating the os uteri, but inefficient upon the perineum and vulvo-vaginal orifice.

The duty of the accoucher is to sustain the perineum, not to dilate, depress or open it. Either the perineum is sufficiently elastic and the fœtus depresses it without tearing it, or its elasticity is deficient, and all methods are powerless to give it that suppleness essential to normal delivery. Every measure, which consists either in drawing the perineum forward, in pushing it backward or in an effort to give it tone by stretching the lateral portion of the vulva, seems to us equally illusory. The secret of the integrity of the perineum, during vaginal delivery, may be summed up in two principal indications: first, to retard the progress of the presenting portion of the fœtus; second, to direct this fœtal part in its adaptation to the form of the genital canal.

[These views have the ring of the true metal. It is the besetting sin of the obstetrician that he pays too much deference to art and too little to nature. Much remains yet to be learned in the management of normal parturition by the study of nature.] J.

The Obstetric Bandage.

PROFESSOR CZERNY (*Centralblatt fur Gynäkologie*) attributes the pendulous abdomen of some women who have borne children to the want of proper bandaging after labor. Observation has shown that the shape of the abdomen and the tone of the abdominal muscles are decidedly improved by the use of the obstetric binder, not only during the first week, but also for several weeks after confinement.

DISEASES OF WOMEN.

Alexander's Operation.

A. LAPTHORN SMITH, B. A., M. D., M. R. C. S. E., in a paper read before the Canada Medical Association at Quebec, made the following remarks upon Alexander's operation :

Preparatory treatment.—The patient must be confined to bed for several weeks, during which time the vagina should be tamponed with glycerine and cotton, interchanged with hot douche with the Davidson syringe. No patient can be considered suitable for the operation in whom the uterus is not entirely free from adhesion, and the tissues around the uterus free from tenderness. The uterus must be perfectly and freely movable. Dr. Alexander thus describes the operation after warning any one who intends to operate, no matter what their standing, to perform the operation a few times on the dead subject, if they wish to avoid disappointment :

The pubic spine is the first landmark, and can be felt by an intelligent finger under any depth of superincumbent fat. It does not make any matter whether the finger can feel the spine clearly or not, provided the primary incision is made within a reasonable distance of it, but there need be no serious difficulty in feeling it.

From this an incision is to be made upwards and outwards, in the direction of the inguinal canal for one and a half to two or three inches, according to the fatness of the subject. A considerable thickness of subcutaneous fat is now to be cut through by subsequent incision, until the pearly glistening tendon of the internal oblique muscle is reached. Midway through the fatty tissue an aponeurosis sometimes appears so firm and smooth as to cause the operator to think he is deep enough ; and if he begins to poke about here as I have done and seen done, it is little wonder no ligaments can there be found. The first stage of the operation consists in simply cutting down upon the tendon of the external oblique muscle, until it appears clear and shining at the bottom of the wound. If the operator succeeded in hitting the spine, the internal inguinal ring with the intercolumnar fibres crossing it, can also be seen. If not, the aperture made down to the muscles can be dragged over an extensive area by retractors, so that the region can be searched until the ring is found. The finger passed to the bottom of the wound may be used to detect the spine and the ring outside, the former by its hardness, the latter by its lessened resistance, compared with that of the aponeurosis around it. The anatomical knowledge of the operator should always be equal to the recognition of these structures—that is the spine and internal abdominal ring. There are other apertures, as the aponeurosis, and a depression filled with fat below Poupart's ligaments that sometimes simulate the internal abdominal ring. Poupart's ligament below the intercolumnar fascia running across, and the spine at the inner side are sufficient landmarks. When in doubt a close deliberate survey of the position should be taken, and no gropings in the dark made, as these are certain to lead to failure.

Having clearly isolated the internal abdominal wound, and tied or compressed any little vessels necessary to be attended to, the next step in the operation may be entered upon—viz. : to find the end of the ligament. The intercolumnar fascia, which is generally pushed forward by the fat and other structures beneath, is to be cut through over all the extent of the internal ring, and in the direction of the longest

diameter, a nerve, some vessels, fat, some bands, and the round ligament springs out of the canal immediately.

In stout people the quantity of fat conceals all the other structures. No grabbing at the mass is now to be practiced, as some have recommended. By everting all the structures upwards the round ligament can be seen generally at the lowest part, and the white, easily distinguished, genital branch of the genito-crural nerve on its anterior surface and close to it. The ligament at this stage is more or less rounded in shape, sometimes rather delicate, but an always easily recognized flesh colored structure, that might be easily destroyed by forceps rudely and blindly applied. Should the ligament seem very frail, or the operator be doubtful whether he has found it or not, he should take care not to displace the structures or to destroy them by searching or pulling. The best plan in such a case is to open up the inguinal canal a little, and then re-examine what he supposes to be the ligament. No difficulty in finding the ligament need thus ever be experienced, provided the operator knows what he is about. When the ligament is clearly identified the small nerve on its surface is to be cut through, without cutting any of the ligament, then gentle traction is to be made ; either by the fingers or broad blunt pointed forceps. Care must be taken not to break the ligament by such traction. Bands will now be seen holding it to the neighboring structure. These should be cut through with scissors, the greatest caution being used to avoid notching the ligament itself at the same time. With a little patience and perseverance the structure is so far free that all resistance is at an end, and it comes out as easily as if broken inside, as Dr. Mundé thought it was in his first case. As soon as it begins to peel out, and without drawing it out further, I leave that side, after covering the wound with a clean sponge, and operate on the opposite side. To do so my assistant and I change sides, so that I always stand on the side opposite to that on which I am operating. I can look thus better into the canal and draw the ligament more conveniently towards me ; but of course the operation could be performed without this change of position. Having freed the opposite ligament, the difficulties of the operation are at an end, and the second stage is finished. I cannot on paper give with advantage a more detailed account of how to perform the second stage. It must be seen to be thoroughly understood. The third stage consists in placing the uterus in position by the sound, and pulling out the ligaments until they are felt to control that position. The replacing of the uterus is first performed, and it is held in position by a third assistant. The operator pulls out both ligaments almost simultaneously and gently, until the sound is felt to be slightly moved. He then hands both to the first assistant to hold, while, with the curved needle, threaded with moderately fine catgut, he stitches each to both pillars of the ring by two sutures on each side, and thus secures the closure of the internal abdominal ring and the fixation of the ligament, without injuriously strangling the latter structure as it lies between. The assistant can now let go, the chafed ends of the ligaments are cut off, and the remainder stitched into the wound, by means of the sutures that close the incision. A fine drainage tube is inserted, and the wound washed out with carbolic or other lotion, before these sutures are tied. In hospital I perform the operation under the spray, and use gauze dressings. In private I dispense with

the spray, and sometimes use boracic lint or absorbent cotton wool. I always drain, as I believe it to be much safer, preventing any collection of pus or danger of interfascial suppuration. It may retard, in some cases, the healing of the wound, but as I never allow my patients out of bed under three weeks, this is not of much importance. Before the dressing is applied, in simple cases of retroversion and prolapse, I insert a Hodge pessary, and keep it in at least during convalescence. When there is retroflexion as well, I always insert a galvanic stem to keep the uterus straight during the healing of the wound. This I look upon as essential. By keeping the stem in for a month or so, the cure may be with certainty effected. An important question with regard to the third stage of the operation is, how far are the ligaments to be pulled out? My reply is to put the uterus in position and pull out the slack. The after-treatment of the operation consists in rest. The wound I generally dress on the second day, when I remove the tube, the small aperture left where they were removed being sufficient to maintain the necessary drainage in most cases. The ligaments should be allowed time to unite to the wound, to the pillars of the ring and to the canal, and for this purpose three weeks is quite short enough time. Several of my private patients have taken a longer rest and with benefit, as thus all the pelvic organs have become accustomed to their new position. The rest need not be in bed—a sofa and the sitting posture may vary the monotony of lying in bed; whilst sewing, reading, and other feminine arts may be indulged in after the first few days.

Such is the operation, and while all are agreed that it is a most ingenious one, there is a great difference of opinion among the highest authorities as to its harmlessness, efficiency and usefulness. I shall not attempt in the time at my disposal to recapitulate all that has been said about it by its leading friends and enemies. Neither shall I venture to say dogmatically that the operation may not prove a useful one. It has not been on its trial long enough for that. I shall merely endeavor to prove that Alexander's operation is not the scientific or rational treatment for displacement of the uterus. And I base my contention on several more or less well known facts.

1st. The round ligament is not really a ligament, but a bundle of muscular fibres derived from the transversalis and uterine muscle, and it follows, therefore, that it is capable of undergoing fatty degeneration, like any other muscle. This we know it does, for several of the very ablest operators who have performed the operation tell us that, in a certain number of cases, they found the so-called ligament so soft, so pliable, and so attenuated that they did not dare to draw on it; or when they did, it broke in their fingers. And these are just the cases where the uterus is likely to be displaced. In a fine, previously healthy subject dying from some acute disease, we will find the round muscles well developed and easy to discover. But this kind of woman does not have displacements; or if she does, she does not know it, because the organ is healthy. So we may conclude that when the patient has neither ache or pain, we will find the pelvic walls and the abdominal organs in a healthy state, and there will be no trouble in reaching the round ligament and pulling it out, and cutting it off. When in a delicate, badly nourished woman, where the muscular system is ill-developed, and the circulation slow, you will find the

uterus congested, heavy, displaced, and you will find the round ligaments thin and weak, if you find them at all.

Even supposing that you can easily find the round ligaments and cut half of them off, and so pull the uterus up into place, I maintain that it is not the right thing to do. If the round ligaments were really ligamentous structures, it would be rational to do so; but they are small round muscles. Mr. Rainey has carefully studied their structure, and has shown that they are composed of striped or voluntary muscle. They arise by 3 fasciculi of tendinous fibres; the inner one from the tendon of the internal oblique and transversalis muscles near to the symphisis pubis, and the middle and external fasciculi from the inner and outer columns of the internal abdominal ring respectively, above Gimbernat's ligament. From these attachments the fibres pass backwards and outwards, soon becoming fleshy; they then unite into a rounded cord, with crosses in front of the epigastric artery and behind the lower tendons of the internal oblique and transversalis muscles. Then they get between the layers of peritoneum, covering the broad ligament, along which they pass backwards, downwards and inwards, to the anterior and superior part of the uterus, into which their fibres, spreading out a little, are inserted. Mr. Rainey, reasoning from the structure of the round ligaments, says that the presence of voluntary muscular fibres proves that they do not serve as mechanical supports to the uterus.

Judging from the origin and nerve supply of the round muscle, I should say that it was the counterpart of the cremaster muscle in the male. Now we know that the cremaster, though not so often as the round muscle, sometimes becomes so weak or the testicles become so heavy, that it is unable to support them and then we have the testicles hanging down, a very painful condition of things. What do we do in these cases? Do we cut down on the cremaster and pull out an inch or two of it and cut it off? No, we ascertain why the testicles are dragging. If it is because they are permanently too heavy from some foreign growth, we remove it; or if only temporarily too heavy from acute or chronic inflammation; we support them for the time with a suspensory bandage, until we can reduce the inflammation. But if the testicles are dragging because the cremaster muscles are in an atonic state, due to the patient's general health being run down, we should rather place him on a local and general tonic treatment. And just as the man's general health returns, so will his testicles rise and cease to pain him.

You all know how the testicles may drop at examination times. In fact pain in the testicle is almost as common as diarrhœa at that time. I have over and over again known the same thing to occur to the womb, in women, under similar circumstances. Many times women have come to me with prolapsus, stating that their womb had come down suddenly as the result of a fright; while several old stagers come to me regularly every summer, during the very warm weather, when everybody and everything seems relaxed, to have their womb replaced.

Should I perform Alexander's operation then? No, indeed I seldom ever introduce a pessary, any more than I would put splints on their legs to cure the weakness in their limbs, which nearly always accompanies the prolapsus in such cases. On the contrary, I order them to remain in bed a few days with their hips higher than their heads, and I give the strongest preparation of iron

quinine and strychnine that their stomach will bear, good air, good food, and cold frictions to the abdomen.

Besides it must be remembered that the uterus is not held up by the round ligament alone, even if it is held up by it at all, which many anatomists deny In fact, to treat displacements of the uterus scientifically, we should have a very clear idea of the manner in which it is held in place. Pardon me if I remind you that the supports of the uterus are very varied. First of all there is the vagina, which in a muscular well developed woman is a strong tube or column alone capable of holding up a healthy uterus. But in the miserable weak woman of modern education it is very much weaker.

Again the vagina itself is supported by the perineum, and if there is rupture of the perineum, there will be prolapsus of the vagina, and, consequently, displacement of the uterus. Perhaps the two most important supports are the anterior or utero vesical and the posterior or utero sacral ligaments. The former contains bundles of fibrous tissue only, but no muscle, and hold the uterus fixed by its neck, to the bladder. The posterior or utero sacral ligaments extend from the lower part of the body of the uterus, to the other side of the sacrum, enveloped by peritoneum, and are composed of non-striated muscular fibres which spring from the uterus. The experiments of Malgaigne would seem to prove that these ligaments constitute the principal obstacle to the falling of the womb towards the vulva. When traction is made on the cervix these ligaments are immediately seen to be tightened, and when they are divided the uterus sensibly drops, but it is soon arrested by the broad ligaments and the resistance of the floor of the pelvis.

The broad ligaments are muscles covered with peritoneum, and do not support the weight of the organ, but merely oppose flexions of the body on the neck, and resists lateral deviations. In fact, as Barnes, Senr., says "The so-called ligaments of the uterus exert but a small influence in preventing prolapsus," and he has frequently seen the uterus in the vagina brought down to the vulva by expulsive efforts at defecation.

As I have above stated, the greatest admirers of the operation admit that it is not at all suitable for displacements with adhesion; and as these are precisely the most troublesome cases to cure by any other means, they are just the ones we are most in need of an operation to come to our aid. But in these we turn in vain to Alexander's operation. The round ligaments would either break before the displacement would be corrected, or else we would have a severe attack of peritonitis or perimetritis.

The only case after Alexander's operation that I have seen, was not a successful one; as in addition to all the troubles of which she complained before going to the hospital, she had a month afterwards an immense inguinal hernia for which she will have to forever wear a truss; notwithstanding that she was operated upon by one of the best gynæcologists in Canada. Besides the operation is not without danger, in fact several deaths have occurred from peritonitis and there may be others from hemorrhage. So that unless the advantages to be derived are very certain and decided we would hardly be justified in exposing our patients to any risk.

While I do not doubt that Alexander's operations, as above described, have been sometimes followed by good results, I am inclined to think that a great deal of the good results may fairly

be claimed to be due to the before and after treatment; for when you have reduced the subinvolution by several weeks' treatment, and kept the patient in bed three or four weeks longer after the operation, with a pessary in her, you will have, in most cases, removed the very necessity of the operation, the uterus no longer being too heavy for its support. But even admitting that it has sometimes, or even often been followed by good results, I do not think that the cure will be permanent, for the reason that the round muscles are not inextensible fibrous ligaments that will not stretch. If that were the case, what would happen in case of pregnancy? The uterus would be unable to rise and abortion would certainly follow. Since the shortened round ligaments are capable of supporting the weight of a heavy uterus, and of mechanically preventing it from falling, surely they would be equally able to prevent it from rising from the pelvis under the expansive force with which the impregnated uterus is endowed. But the advocates of Alexanders' operation assure us that we need have no fear of the result of conception, and that the shortened round ligament will offer no obstacle to the upward movement of the organ. And I agree with them. For, as I do not admit the ability of the round ligaments alone to prevent the falling of the organ a distance of three or four inches, I cannot say that it will keep it from rising.

I therefore maintain that Alexander's operation does not permanently cure retro-displacements and falling of the womb, and that even if it does appear to succeed, there are other safer and more rational means of attaining the same result, and I venture to predict that the operation will not last.—*Canada Medical Record.*

[This article is a good description of Alexander's operation and a fair discussion of its utility. We believe that the writer's prediction that "it will not last," is one that many justly entertain. The cases in which it would seem useful, are as well relieved by less radical measures.

We take exception to the statement that the vagina "in a muscular, well-developed woman, is capable, alone, of supporting the uterus." We believe that it, as well as the vesico-uterine ligaments afford little or no support.]

A. H. B.

Dilatation of the Cervical Canal for Stenosis of the Internal Os, under Cocaine.

Dr. Thomas A. Ashby (*Maryland Medical Journal*):

There is no longer a shadow of doubt as to the value of cocaine as a local anæsthetic, and its employment in surgical work is now only limited to the choice and care of the operator. All mucous surfaces are readily brought under its anæsthetic influences when solutions of sufficient strength are properly and carefully applied to the mucous membrane. The stronger the percentage of the solution, and the greater the length of time employed in its application, the deeper its penetration, and the more profound its benumbing influences.

My experience with cocaine convinces me that it may be employed with the greatest advantage in surgical gynæcology, and that many operations upon the vagina and uterus, hitherto requiring general anæsthenia, may be successfully and painlessly performed when solutions of cocaine of sufficient strength are carefully applied to the tissues. I have employed cocaine in gynæcological work in a number of conditions with almost uniform satisfaction. A recent experience with this drug has induced

me to relate the following case, which I think explains very satisfactorily its benumbing influence upon the cervix uteri.

Mrs. H., aged 23, married 18 months, has suffered from her first menstruation with violent dysmenorrhœa. The menstrual flow has invariably been announced with violent cramps, pains and disturbances of digestion. During three or four days of menstruation the recumbent posture has been required, and a total inability to engage in domestic duties has been almost constant.

Though married 18 months, Mrs. H. has never conceived. Physical examination revealed a small uterus, occupying a low position in the pelvis. The uterus was very acutely retroflexed. The cervical canal was bent and so small as scarcely to admit the smallest probe. There was evident stenosis at the internal os. The diagnosis of obstructive dysmenorrhæa was established, and the dilatation of the canal was proposed for its relief.

The patient was averse to taking chloroform or ether, and expressed a willingness to endure the operation of divulsion with the use of cocaine. After a few days of preliminary treatment, consisting chiefly of the use of hot water injections and attention to the stomach and bowels, the operation was undertaken. One-fourth grain of morphia was administered 15 minutes prior to placing the patient on the table, and at the same time a cone containing one grain of cocaine, with 5 grains of boracic acid, two drops of oil of wintergreen and cocoa-butter q.s., was introduced into the vagina. The operation was then begun. The cone had melted promptly and was removed in a liquid state. The vagina was sponged out with warm water rendered antiseptic with bichloride of mercury (1 to 4000). A small sound was passed into the uterus and the fundus lifted up. The sound withdrawn, applications of cocaine were made at intervals of every three or four minutes to the cervical canal and to the vaginal cervix. The parts were benumbed as thoroughly as possible. The small bivalve dilator was next passed, and the canal stretched so that it would admit of the introduction of the larger blades of Ellinger's dilator. Before divulsing with Ellinger's instrument cocaine was again applied. In fact, the solution was used repeatedly during the operation. When I had succeeded in stretching the blades of the dilator to nearly their full extent, the instrument broke under the strain of the pressure with a sudden snap, which startled my patient. Apart from this she experienced no pain, and expressed herself as ignorant of what was going on. After removing the blades of the dilator, I passed a No. 14 sound into the uterine cavity. Whilst the divulsion was not as complete as I desired to make it, in consequence of the breakage of the dilator, its good results were unquestionably shown. The patient was kept in bed one week. Menstruation came on on the fourth day after the operation, without pain and without nausea. The first sign manifest to the patient was the appearance of the blood on her linen. The result was surprising to her, as such freedom from distress was an unknown quantity in her history. Mrs. H. is now wearing a retro-version pessary, and is at present in comfortable health. As she has not passed through her second menstruation sincethe operation, I am unable to state what influence it will have upon her future health. I relate the case to show the fact that divulsion can be performed with cocaine without pain. I claim no originality for this use of the drug, but simply

offer this testimony to induce my colleagues in gynæcological work to give the drug a trial, if they have not previously employed it for this purpose.

The strength of the cocaine solution used was 4 per cent.

Chronic Metritis.

In a paper read before the Medical Congress, at Nancy, M. APOSTOLI mentioned a new method of treating chronic metritis by electricity, which he has proved to be very successful, and when properly applied is never followed by inflammatory reaction. It is necessary to be provided with a good electrical apparatus, and to proceed with the operation as follows :

1. Make a tepid, antiseptic vaginal injection, and place the patient in the tame position as for examination with she speculum.

2. Introduce slowly into the uterine cavity, the rod previously heated and disinfected, at the same time isolating the vagina and vulva.

3. Perform clinical galvano-cauterization in the uterus ; positive in all forms of hemorrhage, negative in other cases.

4. The strength of the applications may increase from 100, 150 to 200 milliamperes, the strength being in proportion to the patient's previous powers of endurance, and to the gravity and date of the lesion. The length of the application should extend from five to ten minutes, and the operation be performed every week, or every two days, according to the case. Rest should be taken for a few hours after each application. Antiseptic vaginal injections, composed of carbolic acid, should be used night and morning.—*American Lancet.*

The Intra-Uterine Galvano-Cautery.

DR. P. LANDOWSKI spoke at the recent Congress at Nancy in favor of the action of the electro-cautery in membranous dysmenorrhœa. He expressed his belief that though this condition is doubtless chiefly met with in women who suffer from cachexia or some general disease, still the general condition is very frequently the consequence rather than the cause of the uterine disorder. He mentioned two cases in which he had applied the galvano-cautery, the os being first dilated, and the time chosen being five or six days after the cessation of menstruation. In one of the two cases a complete cure resulted. In the other the pain accompanying menstruation was relieved, but a piece of membrane the size of a penny was expelled at each recurrence of the period. This was probably due to a portion of the intra-uterine wall having been insufficiently touched with the cautery. At the same congress M. Apostoli stated that he had employed the intra-uterine galvano-cautery in a large number of cases of chronic metritis and endometritis with very great success. He does not confine the patient to bed during the intervals between the applications, and improvement very quickly follows the first few cauterizations. The author compares this method with that of scraping the intra-uterine wall with a sharp spoon, and considers that it has the advantages over the latter of being capable of exact graduation, of being more easily localized, and of not being so instantaneous. The result of the cauterizations is to cause the formation of a new and healthy mucous membrane.—*Medical and Surgical Reporter.*

A New Use for Apomorphia.

This valuable emetic has proved serviceable in two cases of hystero-epilepsy reported by Dr. T. Hammond Williams, in the *Med. Times and Gaz.*

In one case the attacks were probably due to suppression of menses, in the other their etiology was obscure. In both, however, they diminished in intensity and ultimately disappeared under the hypodermic use of apomorphia in doses of one-fifteenth of a grain.—*Medical and Surgical Reporter.*

A Soothing Injection for Acute Vaginal Inflammation.

TROUSSEAU (*Ibid*), is credited with this combination: Belladonna leaves and stramonium leaves, each, ½ ounce; water, 1½ pint. Boil away one-third of the water and then add thirty drops of laudanum. In cases of carcinoma uteri, when the pain is excessive, two or three drams of laudanum may be used.

An Emmenagogue Powder.

POTAIN (*Ibid*), uses this formula: Powdered artemisia leaves, powdered milfoil, each, 38 grains; powdered saffron, 19 grains. Mix and divide into five powders. In cases of amenorrhœa, give one powder daily for five days before the expected period.

Pills for Metrorrhagia.

Anchord's pill (*Gaz. de Gyn.*) is said to be: ℞. Ergotin, gr. xxv; quin. sulph., gr. xxx; pulv. digital.; ext. hyosc., āā gr. iiiss. M. et div. in pil No. xx. S. From five to ten daily.

DISEASES OF CHILDREN.

Treatment of Chronic Constipation in Children.

DR. W. B. CHEADLE, at the close of a clinical lecture on this subject, points out the disastrous results of mistaken treatment, and shows the necessity of a more rational procedure. Look at the evil effect of strong purgations—how they enervate and wear out the tone of the bowel. No occasional purge of rhubarb or scammony is efficient to cure. Look, again, at the evil effect of frequent enemata. Enemata are only to be used on an emergency. They, equally with strong purges, impair tone and do direct harm by actual dilatation. In confirmed cases of constipated habit, treatment must be not intermittent, but continuous; the daily administration of appropriate remedies steadily, for a considerable period, is absolutely essential. Intermittent treatment is abortive, ineffectual, and aggravates the evil. What then, is the proper treatment for these cases? First, be sure that there is no malformation, no intussusception, no sore about the anus, rendering defecation painful. Then use saline laxatives. Their mode of action is by increasing the flow of secretion rather than by stimulating peristalsis. Thus tone returns when distension is relieved by the easy evacuation of fluid stools. Further aids to this are strychnia, nux vomica, iron and belladonna, They act by increasing muscular tone and nutrition, not by stimulating peristalsis directly. In the case of little children up to two years old simple carbonote of magnesia in milk is sufficient (5 to 10 or 20 gr.); this is better than the piece of soap in the rectum, or the repeated castor oil or manna so constantly advised. In older children the sulphates of magnesia and soda, with the tonics named above, and daily massage with castor oil or cod liver oil, are most useful. In older children still, a pill of aloes, or euonymin, with sulphate of iron and nux vomica, may be given as an alternative to the salts and strychnia, but no frequent rhubarb, or scammony, or podophyllin, or jalap (these are for the relief of temporary difficulty only); in mild cases, perhaps, or if the liver is not acting, a dose of calomel, grey powder, and soda, or senna. Regimen is

an important element in the treatment if the child should have chronic constipation ; abundant water, pure, not hard ; "salutaris water" is excellent. In little children add a good infant's food to milk ; fruits, fruit jellies, treacle, cooked green vegetables of the softer and more delicate kinds. Some variety in food is useful ; a good mixture is better than a monotonous diet. It is, I think, extremely doubtful if coarse food is useful in the long run. It causes atony and weariness of muscle eventually by over stimulation. And you must insist on regular evacuations. Take care that the stools are not dry and hard, or the child will resist action and increase constipation. Other useful adjuncts are—abundance of fresh air, which aids in improving nutrition; and exercise, which aids the passage of the contents of the intestine down the tube, and improves general health and muscular tone.—*Lancet.—Journal American Medical Association.*

Peptonized Milk.

Dr. Robert N. Taylor, in an article published in *American Practitioner and News*, says in conclusion :

In the summer of 1883, the writer first began to use pancreatic extract in the preparation of milk for sick children ; during that season he conducted to a successful issue a case of gastro-intestinal catarrh in an infant seven months old, bottle fed, and sadly neglected. For some time the case bid fair to end fatally, resisting bismuth and zinc, lime water, milk diet, etc. ; but as soon as it was put upon the use of peptonized milk, it underwent immediate, marked, and sustained improvement, making a good and rapid recovery.

During the warm seasons of 1884 and 1885 the writer also used the peptonized milk in several cases of summer diarrhœa in children one and two years old, and always with marked good results ; cases that were dragging along under bismuth, milk diet, etc., waiting for cold weather to cure them, were happily terminated when put upon a diet consisting exclusively of peptonized milk.

A child born in March, 1886, bottle fed, was weak, poorly nourished, inheriting from its father a delicate digestive apparatus. Its food was cow's milk, diluted and sweetened, upon which it grew and did tolerably well until about July 1st, when it began to have frequent attacks of vomiting with some diarrhœa; the vomited matters consisted of milk, curdled in hard masses ; it had frequent painful colics, and stools showed masses of curdled milk. The principal and distressing feature of the case was the obstinate and frequently recurring attacks of vomiting ; and this, with the diarrhœa, cut the child down in spite of bismuth, zinc, soda, mercurials, opiates lime water, and the best treatment that we could devise, until by the end of five weeks (August 7th) its chances of life were reduced to a minimum. At times its temperature rose to 103.5° F., and we had a most severe case of gastro-enteritis in an already delicate infant five months old.

At this time (August 7th) the child was put on the use of humanized milk, prepared according to the formula of Leeds, presented to the New York County Medical Association, July 16, 1884.

From the very first, after we began the use of the humanized milk, the child showed an improvement in all the symptoms ; the vomiting ceased at once, and in a few days the diarrhœa also, so that all medicine was withdrawn and the case left to the reparative power of humanized milk. The child improved

steadily and uninterruptedly, except once, getting out of a supply of the peptogenic milk powder, it was allowed to use simple diluted milk for twelve hours, when vomiting came on with violence, but a resort to an extemporaneous peptogenic milk powder, as at first, promptly relieved this, since which time its growth and nutrition have been progressive and most satisfactory. All the milk it drinks is "humanized," that is, peptonized, with the addition of water, cream, and milk sugar, in such proportion as make it very closely resemble mother's milk digested and ready for absorption, in which state the casein is not curdled into hard masses by the gastric juice, and herein lies the secret of its value as an infant food.

As is well known, animal milk coagulates in the stomach in hard, firm masses, which the infant cannot digest by reason of their firmness and impermeability. These masses of coagulated casein, by their presence, and the mechanical irritation which they give rise to, set up a more or less acute inflammation of the gastric and intestinal mucosa, most apt to occur in warm weather, because of the greater feebleness of the digestive powers at this season. That is exactly the pathology of the case above narrated, and it constitutes the sole objection to the use of cow's milk as an infant food.

Pfeiffer has met and overcome this difficulty by his suggestion to peptonize the cow's milk. By means of pancreatic ferment it is thus pre-digested, either entirely or partially, depending upon the intention of the operator, and is not coagulated by the acid secretion of the infant's stomach, or if so, only in flashes, like human milk. By peptonizing cow's milk it becomes thinner, acquires a slightly bitter taste and is made to closely resemble human breast milk; the addition of water, cream, and milk sugar, in definite proportions, results in a product that, chemically, can scarcely be distinguished from and practically and clinically is identical with mother's milk.

It is to be borne in mind that this method of peptonizing milk for infants is not a patent or proprietary affair, but that it is one of the most important and exact applications of pure science to practical therapeutics aud dietetics.

The uses of peptonized milk are still more varied, as, for instance, during the past summer the writer had in charge a delicate boy, six years old, with well marked typhoid fever, temperature up to 103.5° F. At end of first week vomiting and diarrhœa became troublesome symptoms; the diet being exclusively milk, the vomited matters were masses of hard curds. At this time the milk was peptonized for him, vomiting ceased at once, diarrhœa was never so severe as to demand special attention, and for three weeks he lived upon peptonized milk, being urged to take the largest possible quantity of it. Nutrition was well maintained. By this means, and to this fact, in no small measure, is to be attributed the successful issue of the case.

If we accept the authority of the Salzburg Conference, which experience abundantly bears out, that "cow's milk is the only substitute for mother's milk"—and after considering the various infant foods sold in the shops, "that these can in no way be substituted for mother's milk, and, as exclusive food during the first year, are to be entirely and completely rejected"—then the process of peptonizing cow's milk by which it is "humanized" or made to closely approximate human breast milk physically, chemically, and in its clinical effects, deserves to rank as the very best method

of feeding all those infants who are deprived of the mother's breast.

The preparation which the writer has used is the extractum pancreatis, made by the Messrs. Fairchild Bros., New York, and in preparing "humanized milk," either an extemporaneous product is made from the above extract, or, what is preferable, because more convenient, Fairchild's Peptogenic Milk Powder is used.

Incontinence of Urine in Little Girls.

This is frequently caused by vulvitis, so common in scrofulous and badly nourished children. Sometimes it is caused by the presence of ascarides (most commonly oxyures) in the vagina. Excess of tonicity in the muscular fibres of the bladder is also a frequent cause, as is the feebleness of the vesical sphincter. With such a variety of causes it is useless to look for any one method of treatment that will reach all cases. Attention must therefore be given to the cause, and the first care must be to remove it. The following hints will prove of great assistance in the treatment :

When the cause is a simple vulvitis; sitz baths, lotions of bran water, or water in which walnut leaves have been steeped. This should be followed by dusting the vagina with the following powder, applied by means of an insufflator : Starch, 10 parts ; oxide of zinc, 5 parts ; borax, 5 parts. Reduce to impalpable powder by thorough trituration.

If the vulvitis is diatetic there should be constitutional treatment. Cod liver oil, syrup of iodide of iron, antiscorbutic syrup, etc., suggest themselves to the practitioner.

Santonine in doses of from one to four grains will answer well in most cases, where not contraindicated.

If there be a want of equilibrium between the tonicity of the muscular walls of the bladder and the sphincter, belladonna should be administered, either in powder or syrup. The latter is preferable for little children.

When the incontinence is not only nocturnal, but accompanied by involuntary discharges of the urine during the waking hours, recourse may be had to the following : ℞. Extr. nucis vom. alc., grs. v ; ferri carbonat. grs. xxx ; excip. q. s. ut fiat massa. Mix and divide into 30 pills.

For children of from one to three years, one of the pills on retiring will be sufficient. For those from three to seven years old, one should be given night and morning.

For older girls, especially those menstruating for the first time, I prefer sulphate of strychnia to the extract of nux vomica. The officinal syrup in teaspoonful doses is most excellent. This medicine must be watched, however, very closely and must be discontinued upon the appearance of the slightest muscular twitchings.

When strychnia alone seems to be insufficient its action may be supplemented by faradisation. The application should not last longer than three minutes, and should be given every other day, the positive pole being applied to the urethra and the negative to the sub-pubic region.—*St. Louis Medical and Surgical Journal.*

Vegetations of the Umbilicus in the Newly Born.

M. Broussole (in the *Revue Mensuelle des Maladies de l'Enfance*) says :

These peculiar tumors of the navel of newly born infants are far from rare. They occur from the second to the fourth day, and cannot consequently be called congenital. They appear during the fall of the cord or shortly afterward. Usually single, they are sometimes multiple, and consist of little, humid,

red excrescences resembling non-malignant fleshy tumors. Sometimes they look like a grain of wheat, or a cherry, but more often they resemble a tubercle or the papilla of a polyp. They are generally pediculated and grow directly from the dermis. They exude a sanguinolent serosity, which produces superficial excoriations of the skin in the neighborhood of the navel, staining the linen a dirty yellow. Sometimes these vegetations are vascular and they have been known to give rise to serious and dangerous hemorrhages, though this is exceedingly rare. They usually cause no pain of themselves, the infant suffering only from the consequent excoriations. They sometimes grow with great rapidity, successive crops of them coming and adding to the original mass. They sometimes drop off themselves, leaving no scar or ulcer. The author states that they are best removed by means of a ligature, though when snipped off by the scissors they rarely return. He considered them to be true myomatous or papillomatous tissues of an inflammatory fungous origin.

The Pathology of the Lymphatic Glands in Children.

DR. HENRY N. READ, in an article published recently in the *New York Medical Journal*, says in conclusion:

The most common form of disease in the lymphatic system of children is simple adenitis or gland-inflammation. In those subjects in whom it occurs unconnected with any of the diathetic or inherited diseases there are present in the glands only the ordinary phenomena of inflammation, induration, swelling, pain, etc. Resolution or suppuration may take place, and in either case there is an end of the trouble, the disease not being dangerous. It should be borne in mind, however, that young children, even though healthy and entirely untainted with either tubercle, scrofula, syphilis, or rhachitis, are exceedingly liable to the development of adenitis. Many of the ordinary diseases of children produce induration of the superficial glands, as also do cold, teething, bruises, burns, and especially the various eruptions of the skin, notably eczema of the face and scalp. Errors of diagnosis may occur in supposing children affected with eczema capitas (either acute or chronic) scrofulous, on account of the extensive enlargement and induration of the suboccipital, post-cervical, and submaxillary lymphatic glands. On the cure of the eruption, however, if the patient is not strumous, the enlarged glands will disappear; or, if suppuration takes place, it will be limited to one or two glands. In the field of observation touched upon in this article, the four great diathetic diseases of childhood—viz., syphilis, rhachitis, scrofula, and tuberculosis—offer the most marked and important changes in the lymphatic system. Space and time forbid any extended treatment of these important affections, and I shall limit myself to simply calling attention to some of the most important changes in the absorbent system wrought by the diatheses mentioned. Whether the lymphatics are primarily affected in these diseases, or become affected with other tissues in the subsequent course of the morbid changes, cannot be proved, but that their perverted function soon shows itself through the system, in its own peculiar way, is readily seen. The alterations in the lymphatic glands are probably less extensive, and certainly much less dangerous, in syphilis and rhachitis than in struma and tuberculosis.

Congenital syphilis is a specific poison obtained in the child by inheritance

from one or both parents. It presents the following symptons in the infant:

Anæmia, Atrophy, Malnutrition, } Common to all the diathetic diseases.

Certain eruptions of the skin, Certain lesions of the mucous membranes, Certain diseases of the bones, Certain affections of the glandular system, } Peculiar to this disease alone.

The poison of syphilis, as is well known, has a peculiar affinity for the glandular system, and the lymphatics, as part and parcel of this apparatus, come in for their share. In the syphilitic child, therefore, we find all the superficial lymphatic glands enlarged and indurated. The most obvious and presentable are the inguinal and post-cervical. The axillary, suboccipital, supra-condyloid, and other less important glands, however, can be felt on search—in size from a millet-seed up to that of a bean—and are noticeable for their hardness. The internal or deep seated glands are also enlarged, and may produce some functional derangement by pressure on neighboring parts. The thymus gland is much enlarged, and frequently suppurates, though it is doubtful whether the syphilitic poison causes this change. The spleen is now regarded by the later authorities as belonging to the lymphatic glandular system, and its behavior in congenital syphilis strongly supports this view. The researches of Gee, Barlow, Hirschfeld, and others render it probable that the spleen is enlarged in nearly all cases of inherited syphilis, the degree of the hypertrophy being dependent upon the severity of the disease. The enlargement is due to simple hyperæmia, or at the most hyperplasia, no new growth or other changes taking place. It is slow, persistent, and painless, unaccompanied by inflammatory changes or any breaking down of tissue, subsiding slowly under specific treatment, and acting very much as ordinary buboes do in acquired syphilis. It may be remarked, finally, in connection with this part of the subject, and what is of importance to remember in making diagnoses, that the lymphatic glands have a harder and more indurated feeling to the touch in congenital syphilis than in other diathetic diseases, that they disappear under specific treatment, and finally, that they do not tend to suppuration.

Rhachitis, though not an inherited disease, nor, strictly speaking, a diathetic one, yet is classed among the diathetic diseases. It presents

Great weakness, Anæmia, } Common to all diatheses.

Certain affections of the bones, Certain affections of the glandular system. } Peculiar to this disease alone.

The lymphatic glands are all enlarged in rhachitis, notably the spleen, and are affected, according to Jenner, with albuminoid degeneration, corresponding very closely to amyloid degeneration. The induration of the glands is not very marked, they being rather soft to the feel, and not tending to suppuration. These changes in the lymphatic system of course make themselves felt in the economy, but the effect is much less marked than in the other diatheses.

The glands of the neck are the most frequently affected in struma and tubercle, and all practitioners are acquainted with these troublesome abscesses which leave such unsightly scars. A peculiarity of these inflamed glands is the frequency with which the inflammation attacks the deeper seated glands, pus being formed deep down underneath a layer of glands which have not yet suppurated, so that, on making an opening for the discharge of pus, the incision is

blocked up with a cheesy mass or plug (a gland not yet having undergone suppuration), which must be pulled or dissected out before there can be a free discharge of the matter. The inflammation is of a chronic character, and tends to involve one after another of the sets of glands, frequently extending deep down in the triangles of the neck and under the clavicles, and may produce serious local trouble. Another set of lymphatic glands affected in children in struma and tuberculosis, are the tonsils. Chronic enlargement of the tonsils has long been noticed in children of a scrofulous or tubercular habit. The slightest causes serve to set up inflammation of the tonsils in this class of children, and the inflammation becomes chronic and enlargement follows. So intimate is the connection between tonsillar enlargement and tuberculosis, that some writers have regarded hypertrophy of the tonsils as a cause of pulmonary tuberculosis; but these are doubtless cases of cause regarded as effect.

The deep seated lymphatic glands which are most effected by scrofula and tuberculosis, and whose implication involves the most serious results by inducing consumption in its various forms, are the mesenteric and the bronchial glands. The terms marasmus, tabes mesenterica, consumption of the bowels, and mesenteric phthisis are indifferently applied to that form of scrofula or tuberculosis in which the glands of the mesentery are chiefly diseased by deposit, enlargement and degeneration. The anatomical situation of the mesenteric glands renders their enlargement alone, if very great, of danger to the child. Lying close to the lacteals and thoracic duct, their pressure on these vessels may occasion difficulty of absorption of the chyle into the system, and wasting and atrophy of the patient may result from this cause alone. Sometimes the enlargement of these glands is so great that they may be felt through the abdominal wall. As the enlargement increases and the glands begin to soften and break down, chronic diarrhœa, chronic peritonitis, perforation, and agglutination of the bowels may take place, and the patient succumbs to these. In most cases of mesenteric phthisis, however, the fatal result is hastened or accomplished by the appearance of the disease in other parts of the body, usually in the lungs. The name bronchial phthisis has been given to cases in which the bronchial glands have become infiltrated with scrofulous or tubercular deposit, and which in consequence caseate and break down. The name, however, is a misleading one, and was applied when these cases were believed to be due to tubercle alone, but, for want of a better, it has to be retained. Enlargement of the bronchial glands does not necessarily imply chronic lung disease, and cases occur in which the disease is limited to these glands and those of the mediastinum alone. These glands are situated at the bifurcation of the trachea, behind the upper bone of the sternum, and a little below it. They also accompany the bronchi into the interior of the lung, and, when swollen, produce the most serious consequences by pressure on the surrounding parts—blood-vessels, air-passages, and nerves. There is generally in these cases pressure on the large veins coming from the head, causing lividity and swelling of the head and face. The pressure on the nerves of the larynx gives rise to cough of peculiar ring and stridor, like that of whooping-cough. Where the disease is confined to the glands, it may terminate in recovery by calcification of the glands; otherwise it may end by

the rupture of the abscess into the pleural cavity, into the œsophagus, or into a bronchus, or by the erosion of a large blood-vessel, causing fatal hemorrhage. When the gland simply softens and becomes converted into pus, hectic fever and general wasting set in, and a very common termination in this case is the production of acute general tuberculosis induced by absorption of the degenerated gland matter.

The enlarged glands can usually be detected on percussion, giving dullness over the upper part of the sternum and on either side, while over the lung the percussion sounds are normal. Owing to the conduction of the sound by these solidified glands, auscultation over the apices of the lung and the supra-spinous fossa will reveal breathing of a loud and cavernous character. A peculiar hum may be heard over the left second interspace, according to Eustace Smith, which is produced by pressure of the enlarged glands on the descending vena cava, or the left innominate vein. This author also states that one of the earliest indications of bronchial phthisis, noticeable long before the ordinary symptoms of pressure are manifest, is the venous hum heard when the patient's head is bent backward and the stethoscope is placed over the upper portion of the sternum. If the bronchial glands are at all enlarged, this position of the head tilts the trachea and the glands at its bifurcation up, and causes them to impinge upon the left innominate vein and to press it against the upper bone of the sternum as it passes behind the bone. Bronchial phthisis in a majority of cases terminates in pulmonary phthisis.

Two more glands require notice in conclusion. These are the retro-pharyngeal, two small glands lying in front of the spine, and upon the rectus capitis anticus major muscle. These glands are enlarged in common with all the others in scrofula and tuberculosis, and occasionally give rise, by their suppuration, to retro-pharyngeal abscess. This is dangerous to young children from its pressure on the windpipe, and sometimes terminates fatally.

Cannabis Indica and Belladonna in the Treatment of Whooping Cough.

VENTLESEN (*Pharm. Ctrlh.; Dtch. Med. Ztg.*) recommends the following formula: ℞. Extract of cannabis, 2 parts; extract belladonna, 1 part; absolute alcohol, 10 parts; glycerin, 10 parts.

For children between eight months and a year old, four drops are given as the dose; for those between one and two years, from five to eight drops; for those between two and four years, from eight to twelve drops; for those between four and eight years, from ten to thirteen drops; for those between eight and twelve years, from twelve to fifteen drops; and for persons over twelve years, from fifteen to twenty drops. Unpleasant effects are said not to have been observed, and it is added that experimental trials have shown that neither cannabis nor belladonna alone produce such favorable results as the mixture.—*N. Y. Medical Journal.*

A Prescription for Infantile Diarrhœa.

DR. C. R. ILLINGWORTH writes to the *British Medical Journal*, that during the last five or six months he has found the following medicine to answer well for almost every case of infantile diarrhœa in which he has used it: ℞. Sol. hydrarg. bichlor., ʒ iss — ʒ ij; potass. iodid., gr. viii; spirit ammon. co., ʒ ss; sol. acid. carbol. (1 in 20), ʒ j — ʒ ij; tinct. camph. co., ʒ ss; vel. chloral, gr. xv; syrupi, ʒ iij; aquam, ad. ℥ iss. M. ft. mist.—One teaspoonful every three or four hours

DISEASES OF WOMEN.

Dr. Emmet's New Perineal Operation; its Advantages over the Regular Operation.

DR. A. MACLAREN, in an article published recently in the *Northwestern Lancet*, says: The perfection of the perineal operation, as it is generally performed today, is in great part due to Dr. Emmet's ingenuity. The use of silver wire as a suture, the binding together of the free ends of the twisted sutures, covering them with a bit of catheter or rubber tubing, the higher denudation into the sulci, are all points which were either devised by him, or which he brought into prominence, years ago.

There were two main considerations which led Dr. Emmet, some six years ago, to change both his principle and his method of operating.

The first cause for this change, the cause which led him to change his principle for restoring the perineum, was the firm conviction that the generally accepted theory of the physiological function of the female perineum was erroneous; that the perineum did not support the uterus either directly or indirectly, and that the loss of the perineum led to displacement of the uterus, not by withdrawing a support to the uterus, but by allowing the rectum to push forward into the vagina in the form of a rectocele, dragging upon the uterus through the posterior wall of the vagina, especially during the expulsive efforts of defecation.

The second cause, the one which led Dr. Emmet to change his method of operating, was the clinical fact that he found that the most frequent perineal tears were not central, but transverse.

The advancing head of the child or more frequently the lower shoulder, pushes the perineal body in front of it and tears it away from the posterior vaginal wall, the tear starting in one posterior sulcus and ending in the other, accompanied, perhaps, by a more or less severe tear of the fourchette or it may be showing no external signs of the injury.

As this statement of Dr. Emmet's is so entirely at variance with the generally accepted theories of perineal lacerations, I have taken the past two years every opportunity of satisfying myself as to its truth or falsity, and I can only say that I have been very much surprised by the results of my observations. I find among a few histories taken while serving upon the staff of the Nursery and Child's Hospital, of New York City, the records of four transverse perineal tears, all occurring within one week. The women were primiparæ, the labors were all normal, no instruments were used and the tears were superficial, the most severe being only three-fourths of an inch in depth, and were not considered as extensive enough to need a suture, by Dr. Ten Eyck, then acting as house surgeon.

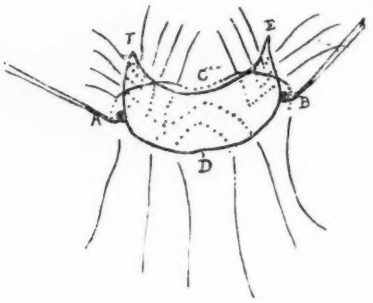
During my service in this hospital I never saw a purely central tear, and I came to the conclusion that Dr. Emmet was entirely correct; that a central tear never occurred except in the cases when the tear extended through into the rectum. My experience in private practice has not led me to change my views; on the contrary, has but confirmed my belief.

If now we take a recent perineal wound, and separating its edges, follow it up the posterior vaginal wall and back into the posterior sulcus upon one or both sides, it will be found to correspond in shape to a crescent, or to half a crescent, according to whether the tear be unilateral or bilateral.

If the tear happens to be bilateral or crescentic, extending completely across the vagina from one posterior sulcus to the other and with no external split, the

injury is very often overlooked ; on the other hand, if the tear is unilateral, extending from a posterior sulcus to the centre of the perineum and ending in a central tear of the perineal body, the external or inferior end of the tear may be the only part of the injury which is recognized and treated. Following this idea of a crescentic and transverse tear, and recognizing the insufficiency of the regular operation to cure such injuries, Dr. Emmet devised the operation which is now known as Dr. Emmet's new perineal operation.

His denudation is made in the shape of a crescent, the crest of the rectocele corresponding to the point C in the



figure, the centre of the lesser curve of the crescent. The lowest caruncle upon either side, A and B, dividing the greater curve into three nearly equal parts, the horns of the crescent extending into the posterior sulci upon either side. To avoid denuding too high into the sulci, the tissues between the crest of the rectocele and the caruncle upon one side are put upon the stretch, and the upper margin of the denudation made to correspond to a straight line running between these two points, the mucous membrane and cicatricial tissue being then removed out to the site of the fourchette, not touching the skin nor the mucous membrane upon the labia. Now if this denudation is repeated upon the other side, the surfaces denuded will be found to roughly correspond in shape to a crescent.

The surfaces are now brought together as follows: The line A T is closely approximated to C T by short interrupted stitches of either silver, silk or cat gut. I decidedly prefer the last named, as they do not have to be removed, and are plenty strong enough if prepared in juniper oil and alcohol, a chromic acid hardening not being found necessary. The same is now done with the other horn of the crescent. Then the two points A and B, which correspond to the lower carunculæ, are brought up to C, the crest of the rectocele, by a crown stitch of silver wire, which corresponds to the crown stitch in the regular operation. The operation is now completed by closing the sulcus made by folding the line A B upon itself, A D being united to B D, as Dr. Dudley advises, by one or two silver stitches deeply passed, which simply act as splints to keep the two sides in apposition,and not drawn tightly enough to put any tension upon the parts.

In regard to the sutures: The catgut sutures are passed as shown by the dotted lines in the figure, so that when tightened they help to raise the parts up and draw them back under the arch of the pubes. They should be tied by three square knots and cut short. The crown stitch as well as the other silver sutures are best secured by a compressed shot close to the skin, and then the free ends of the wire cut short. The advantages of this operation are :

1. That you can restore the perineal body more perfectly than by any other operation, from the fact that it is possible to more accurately follow the track of the original tear and pick up the torn fascia and perineal muscular fibres.

2. During convalescence the patient

suffers practically no pain, it being the exception to administer an opiate.

3. The patient is able to pass her own water herself, and the nurse and the catheter, with the consequent urethritis, are done away with.

4. It is not necessary to confine the patient's motion in bed nor to tie her knees together.

5. The bowels can be moved upon the second day, as it is not found necessary to constipate the patient for from four to six days, as is usually done in the regular operation.

Referring to my case book, I find the records of thirteen perineal operations, all done by this method, during the past fifteen months. In every case union has been perfect.

[All the advantages claimed in this paper for the new operation of Emmet, were claimed for his old one, and three more might be claimed for the old. 1st, that it is more easily performed; 2d, that it more effectually restores the original perineum, and 3d, it gives as good results. The majority who favor this operation are mostly Alumni of the Woman's Hospital. It is natural for Alumni to follow their Alma Mater, who in this case is Dr. Emmet.]

A. J. C. S.

Retroversion of the Uterus.

DR. THEOPHILUS PARVIN, in a clinical lecture, said:

The patient is a woman aged forty-nine, who has had three children, the last one six years ago; she has had no miscarriages. When I asked her about her history, she says that she has never been well since her first confinement. The second child was born one and a half years after the first, and the third followed the second in one year and five months. So you see she has had three pregnancies, following each other in rapid succession, and she tells us that she has nursed all of her children. She was thirty-two years old when her first child was born, and this fact causes me to speak of her as having been an old primipara.

She tells us that her chief complaint is pain in the back and in both sides, but most marked on the right. Now, I ask her if any position she may assume will afford relief to this pain in the back. She says that when lying down she will frequently stuff a pillow into the small of her back, and that this affords relief.

From this instinctive effort to afford some artificial support to the back, we must needs infer that there is some extreme pressure on the back, and so, in truth, there is, for it is usually in cases of retroflexion, where the uterus is pressing down on the sacrum, that we find women stuffing pillows under their backs.

This woman tells us that her menstrual periods are regular, but that she has some discharge, some leucorrhœa, or, as she tersely puts it, the "whites."

I find that this case has been put down on the register as one of laceration of the cervix. Well, in a measure, this is correct; there is, no doubt, a laceration, but there must also be some further trouble behind and beside this to account for the symptoms she presents. She has a copious discharge, which really means that there is a uterine catarrh, and I would here say that I think it is best to call all non-sanguinolent discharges from the uterus uterine catarrh. This is simply a hypersecretion.

When the irritation is but slight in degree it merely produces an increase of secretion, while when it is more severe it not only causes this increase, but it also produces a perversion of the

secretion. In this case the discharge is like the white of egg, from which we infer that it comes from the uterus, for if it was from the vagina it would be more milky in character. A woman with uterine catarrh does not usually have a vaginal leucorrhœa, but let her walk for several squares, and she will find her garments soiled with a discharge that has come from the vagina and has been caused by the irritation of walking. Now, at times this discharge is yellowish and contains pus, which ocurs when the grade of irritation is temporarily higher, and, as I have said, as a consequence, the character of the secretion is perverted.

The laceration will not account for all the symptoms, and the fact that there is uterine catarrh indicates to us that there is inflammation, or at least congestion of the uterus. If this discharge were thin and watery, then I would say that it came from the cavity of the uterus, but, as it is thick and sticky, we know that it comes from the cervical canal. A still further test of the origin cf the discharge could be made up by the use of litmus paper; if it was found to be alkaline, then we should know for sure that it came from the cervix. She further complains of this pain, which Dr. Matthews Duncan has so aptly called Sacralgia, not a very euphonious, but at the same time a very expressive word. It is a girdle of pain, as it were, starting in the small of the back and passing nearly around the body. This pain means that there is most probably a posterior displacement of the uterus. You know that the utero-sacral ligaments play a very important part in keeping the uterus in its normal position, and while these ligaments maintain their integrity the uterus cannot become displaced, but when, through their relaxation, the fundus of the uterus falls backward and the cervix is, in consequence, tilted forward, there must be, as you can readily comprehend, a stretching, a tension of these, that will cause this pain. But in addition to this sacralgia, there is also pain in front, in the right and the left.

How can we account for this? Very readily, by supposing that this uterus is dragging on the round and broad ligaments. When a patient comes to you complaining of such pain you can rest pretty well assured that you have to do with either a prolapsed or a retroverted uterus. Well, then, we have satisfied ourselves that this woman has retroversion. Now, this condition might be overlooked in the laceration. She might go to a doctor, who, discovering the laceration, and supposing it to be the cause of all the trouble, would operate on it. This operation might have the effect of lessening the catarrh, and it would most likely do so, owing to the combined influence of the rest which the operation would entail and the depletion which the escape of blood during the operation would entail, thus reducing the congestion. But in a short time the catarrh would be as bad as ever, because the operation would not radically remove the cause.

It will sometimes happen that an operation for laceration of the cervix will cure a retroversion, and that the uterus will hereafter maintain its normal position. This result I would ascribe to the setting up of an inflammation in the utero-sacral ligaments, as a consequence of which they contract, thus drawing the cervix backward and tilting the fundus forward. But while this does occasionally occur, yet I would advise you not to count on it, for if you do you will be frequently disappointed. It is not enough merely to operate on the laceration; in fact, I doubt very much whether

such an operation would be advisable in this case, where the laceration seems to be producing comparatively so little inconvenience. We will place the woman on her left side and draw the uterus downward, then draw the cervix backward and endeavor to keep it in position by a pessary. We will also resort to injections of hot water, to reduce the congestion, paint the cervix with Churchill's iodine, and use tampons of glycerine. If the catarrh persists, then we will operate.

I speak as I have about the operation for lacerated cervix to put you on your guard, for there are some who seem to think that this operation is a sure cure for all the ills that woman flesh is heir to.

Free Suppuration Caused by Using an Unclean Needle During Ovariotomy.

By ALEXANDER J. C. SKENE, M.D.

Those who know most about antiseptic surgery know how difficult it is to avoid mistakes. By one little oversight a whole operation may be reversed. While keeping watch of everything during an operation it is easy to let some unclean hand or instrument come in to play mischief.

I had a very good illustration of this two weeks ago. An abscess formed at the upper angle of the abdominal wound in a case that I had operated on for cyst of the broad ligament. All the rest of the wound healed promptly without suppuration, and as I have had prompt and complete union of the abdominal wound without a trace of suppuration, I was greatly puzzled to know why this case should have proved an exception. Carefully thinking over the operation, I suspected that I had either used a suture or a needle that was unclean, and I found out that I had used a foul needle. The facts in the case are as follows :

The other day I operated upon a suppurating cyst located between the folds of the right ligament and extending down to the vagina. The cyst, while it was large enough to extend up to the umbilicus, was completely covered with the two folds of the ligaments, which were greatly thickened and very firmly adherent to the cyst wall from the inflammation. The uterus and left ovary were crowded over to the left side and high up out of the pelvis. Owing to the thickening of the ligament and the extent to which the cyst dipped down into the pelvis, I could not ligate and remove the entire mass, so I tried to enucleate the cyst. This was very difficult, but I succeeded in getting all of it except the lower part. This portion I could not separate from the ligaments, owing to the firm adhesions and the great vascularity. The cyst wall was also softened by suppuration, and I concluded to attach the remainder of it to the abdominal wall. This I did, and with great care I kept the abdominal cavity and the abdominal walls free from contamination. When introducing the suture at the upper angle of the wound I punctured a vessel which bled profusely. In order to stop the bleeding I passed the suture across the tract of the bleeding vessel and tied it on the surface of the wound. The needle was one which had been used in stitching the cyst to the abdominal wound and was therefore unclean.

A New Method for the Removal of Intramural Uterine Tumors.

DR. O. STROINSKI, of Chicago, writes to the *N. Y. Med. Record* as follows: After severe losses in removing intramural uterine tumors through the abdominal or vaginal walls, I decided either to abandon entirely any attempts of extirpation of these tumors, or to find a method that would give a reasonable show of favorable results. Lately I

have found that continued intra-uterine injections with diluted subsulphate or sesqui-chloride of iron produce a discharge of mucous membrane, as well as muscular stratum, and that, combined with the effect of contractions always evoked by these injections, causes the intramural tumors to be forced into the uterine cavity, where they may easily be seized and extracted. I will give the minute details of these proceedings at another time, and will now merely formulate the conclusions which I have arrived at after a careful study and a good deal of experience: 1. Extirpation of intramural uterine tumors through the abdominal or vaginal walls is as unnecessary as it is dangerous; while, 2. There are certain procedures which always transform the intramural into an intra-uterine tumor, which can be easily extirpated. 3. These procedures only should be made use of in the removal of intramural tumors, being entirely harmless, and never endangering the life of the patient nor maiming the sexual organs. 4. Even the largest myoma might be easily removed by this operation. 5. Only tumors situated on the surface of the uterus are excluded from this procedure. I have operated on cases in which large doses of ergot had been taken for a long time without the slighest effect, and in one case in which the tumor had existed before marriage, and a child had been born without the tumor losing its size or changing its position. I will furthermore say, that I have operated in private as well as hospital practice, so that there cannot be any doubt of the reality of the facts.

A Contribution to the Study of the Operation of Shortening the Round Ligaments.—Alexander's Operation.

DR. THOMAS A. ASHBY (*Maryland Medical Journal*): There can be little doubt of the fact that the uterus is the most movable organ in the female body. It changes its position in the pelvis with each inspiration and expiration, rising and falling with rhythmic precision. Its axis in the pelvis is constantly influenced by the contents of the bladder and rectum, being displaced forwards or backwards by the fulness or emptiness of these organs. This latitude of motion has been wisely provided for by the character of its anatomical arrangements and supports. At once restrain the uterus from assuming its various normal relations to other pelvic organs and viscera, and the consequences become apparent. The extent of motion allowed the uterus is a varying quantity within certain limits. The exact position of the uterus in health is a point which cannot be established, since with every woman the relation of this organ to other organs is as variable as the shape of the nose or the expression of the features. The uterus is found turned or flexed at different angles in many individuals, without giving rise to the least inconvenience, whilst in others the slightest deviation of the organ from its normal axis in the pelvis, is accompanied by distressing symptoms.

The uterus is supported in the pelvis by tissues which perform the function of bumpers rather than the support of strong ligaments, hence its support is to be measured rather by the tonicity of the tunics which invest it than by connecting fibres which restrain it like so many stays or braces. The body of the uterus is invested by the peritoneal membrane, which, though closely adherent to its anterior and posterior surfaces is given off in folds on its lateral borders to form the so-called broad ligaments. As the peritoneum is reflected from the anterior and posterior surfaces of the uterus, it turns up over the

bladder in front and rectum behind to form the so-called utero-vesical and utero-sacral ligaments. In addition to these so-called ligaments two rounded cords, made up of areolar tissue, vessels and nerves, besides a dense bundle of fibrous and muscular tissue, are given off from the sides of the uterus, near the fundus, and curving around between the folds of the broad ligaments pass through the internal abdominal ring along the inguinal canal, and, as they emerge from the external abdominal ring, are lost in the tissues of the labia-majora. These cords are known as the round ligaments. They present the appearance of a true ligament, and may be so regarded. These ligaments are between four and five inches in length, and as they run in a tortuous direction through the folds of the broad ligaments and curve round the sides of the bladder, they hold the fundus of the uterus nearer to the symphysis than their length would indicate. It is believed by some anatomists that the round ligaments have the peculiar function of drawing the uterus towards the pubis. They are also believed to aid in fixing the uterus in its proper axis in the pelvis. In addition to the supports mentioned, the uterus is held in its position in the pelvis by the walls of the vagina, which surround the cervix and embrace it as a keystone at the arch of the vaginal roof. The vagina in turn is maintained in its long diameter by the tonicity of its muscular and cellular coats, and by its attachments to the bladder in front and rectal wall behind. When all of these tissues are in a condition of tonicity they conjointly support the uterus and pelvic organs. When greatly relaxed from any cause they allow the uterus to sag down in the pelvis and to draw down its natural supports. Thus prolapse of the uterus necessarily drags down its peritoneal investment and the round ligaments, depresses the vaginal arch at the cervix and draws in the anterior and posterior vaginal wall, first at the internal end of the vaginal tube and next along its entire extent. This process of descent may be reversed in those cases of rectocele or vesicocele where the uterine support is weakened at the external end of the vaginal tube. When the tissues which make up the pelvic roof retain their tonicity, even in the absence of vaginal support, the descent of the uterus is resisted and the organ can only be dragged down through the vulva by overcoming this resistance. When the uterus is strongly seized with volcellum forceps and drawn down in the vagina, we have this condition. The broad ligaments are put on the stretch, the bladder is drawn down with the uterus, owing to the intimate connection between the two; the rectum is not disturbed, owing to the loose attachment of its subperitoneal connective tissue to the vagina. If the broad ligaments now be severed complete prolapse of the uterus is secured. The round ligaments are the last tissues put on the stretch. From this history of uterine prolapsus here described, it would seem that the round ligaments play a very insignificant part in supporting the uterus, whilst the broad ligaments and utero-vesical and utero-sacral folds of the peritoneum materially add to the support of the organ.

When we come to study the causes of version and flexion of the uterus we find the same deviations from the normal axis with variations within health according to the individual point.

Anteversion is regarded by anatomists as the normal position of the uterus. In childhood and in the woman who has not borne children, the uterus is almost invariably turned forwards.

The reverse position, retroversion, is the most frequent form of displacement. Uterine flexions are almost invariably due to faulty nutrition of the uterine muscles, but they may result from over-pressure from tumors, or from intestines forced down into the pelvis by tight lacing. Flexions may occur in the cervix or in the body. The first named variety is referable to undue length of development, the elongated cervix being bent upon itself by mechanical pressure. Flexions of the body of the uterus must be attributed to the weakened supports of the uterine walls, which yield under super-imposed weight, either connected with the uterus itself, or external to the organ. The broad ligaments undoubtly exercise an influence in the prevention of versions and flexions, but where these supports are relaxed or over-stretched by constant strain exercised upon them their restraining influence is overcome. The utero-sacral and utero-vesical ligaments are simply folds of peritoneal tissue, which exercise but partial resistance against version and flexion. The function of these ligaments seems to be to aid in the suspension of the uterus in the pelvic canal. The round ligaments coming off from the fundus and passing forwards into the inguinal canal, undoubtedly exercise a strong influence in preventing posterior displacement of the uterus. Their course around the bladder is somewhat tortuous; this may allow a certain amount of lengthening, estimated at from two to three inches, before they are made taut by the posterior displacement of the uterus. The round ligaments exercise but little, if any, influence in preventing prolapse of the uterus. Savage has shown that after all other supports to the uterus are severed they are the last made taut by procidentia. In view of the fact that the round ligaments have the power of drawing the fundus of the uterus forwards, the advantage of shortening their length in cases of posterior uterine displacement is now an established fact.

The Alexander operation has a limited field of usefulness, but when properly employed within the limits assigned to it, it is in my belief one of the most valuable procedures contributed to surgery within the last decade.

In this connection it is proper to discuss a few of the steps of the procedure. *First*, as regards the danger of the operation. As far as I have been able to collect statistics, the mortality has been less than two per cent. The operation is as nearly devoid of danger as any procedure can be, if it is properly performed. Among the cases reported death was attributed to pyæmia in three cases, which resulted from want of care and cleanliness. Peritonitis is a source of danger, since it is possible to injure this membrane in drawing the ligament through the canal. With ordinary care the peritoneum can be discovered and its injury avoided. *Second*, the difficulty of finding the ligaments has been referred to by several operators. In the case here reported no trouble, in this respect, was experienced. With proper care and a knowledge of the anatomical arrangements the ligaments can be brought into view by cautious dissection. In a report of forty cases, made, in November, 1885, by Dr. Alexander, this difficulty was not experienced. Imlach, of Liverpool, has reported thirty-six cases without difficulty in finding the ligaments in a single case. As opposed to this experience Mundé of New York, was unable to find the ligaments in three cases out of six cases; he therefore claims that this is an element of uncertainty in the operation. The fact that the inability to find the ligaments has

occurred in less than four per cent. of the cases reported is but a slight disparagement to the operation. Such a failure upon the part of the operator only necessitates the closure of the incision and leaves the patient in the same condition she was in prior to the attempt.

I quite agree with Dr. Alexander in the statement that the operation is a delicate one and quite different from ordinary procedures. The external end of the ligament lies imbedded in the tissues and will be readily overlooked if not carefully dissected out. Its white sheen can be made to appear when gently drawn out of the ring. It then has the appearance and structure of a true ligament. The after-treatment of the operation should be conducted on strict surgical principles.

The following summary of conclusions is offered.

1. The round ligaments are designed to hold the uterus in its axis in the pelvis and to draw the fundus of the organ towards the symphysis pubis. They have little if any sustaining power in preventing procidentia, except in extreme degrees of descent where the organ has escaped external to the vulva.

Posterior displacement of the uterus can only take place when the round ligaments have been relaxed or stretched by prolonged tension.

2. Shortening the round ligaments is a practical method by which the uterus may be lifted into its normal axis and be retained in position by a restoration of its normal supports.

3. This operation is admissible in all cases of posterior displacement where the uterus is not fixed by adhesions, but perfectly movable in the pelvis, and where other methods of support are not of service.

4. The operation can prove of little value in cases of procidentia, except when employed in conjunction with other methods instituted to overcome this form of displacement.

5. The operation can be easily performed by one who is familiar with the anatomy of the parts. It is almost devoid of danger if ordinary safeguards are employed.

6. In the class of cases to which it is limited the benefits secured are striking and important.

Neurotic Symptoms Attending the Menopause.

DR. WILLIAM GOODELL says in *The Polyclinic :*

This patient comes to us with the history that she is 60 years of age, that she has had three children, the youngest of which is 30 years of age. The menopause occurred ten years ago. She complains of a burning pain in the pelvis. On vaginal examination, I find a cicatricial band at the neck of the womb. We not infrequently find women about this age complaining of a burning pain in the abdomen, running down through one iliac region to the vulva. This, to my mind, is neurosis, and it is one that is very difficult to cure. The change of life usually does not require a long time, and, as a rule, at the end of that time the woman is well ; but she may present a condition of this kind. Under these circumstances I always give the bromides, and a favorite prescription with us is the following : ℞. Ammonii chloridi, ʒ ij ; ammonii bromidi, ʒ iv ; tinct. gentianæ co., aquæ, āā, f. ℥ iij. M. Sig.—A tablespoonful, in water, before each meal.

I always give with the bromides a bitter tonic, to counteract their depressing effect. I am fond of using the ammonium chloride, on account of its stimulating effect on all the emunctories. The ammonium bromide is used instead

of the potassium salt, because it makes a neater prescription, and also because its effect is less depressing. Another formula, which I frequently employ in these cases, I may as well give you now. It is my pil. sumbul comp., sugar-coated by Bullock and Crenshaw: ℞. Acidi arseniosi, gr. $\frac{1}{40}$; ferri sulph. exsiccati, extract sumbulli, aa, gr. j; asafœtidæ, gr. ij. M. Ft. pil. j. Sig.—One after each meal. If this does not have the desired effect, the dose may be increased.

I am disposed to think that the burning of which this patient complains is purely a neurosis. It seems incredible that at this time of life it could come from the ovaries, but it may come from the plexus of nerves in the neighborhood of these organs. There is another form of burning to which I desire to refer. Women about the change of life, or past it, will speak of a burning of the vulva, usually accompanied with itching. My advice is, under such circumstances, always to examine the urine for sugar. If the woman is at all stout, there is probably sugar in the urine. It has been supposed that it was the presence of the sugar in the urine trickling over the parts that caused the pruritus. This may be so in a few cases, but in the majority of instances the itching is a neurosis. In the treatment of these cases, local applications, with remedies directed to the glycosuria, are required.

There may be at this period of life a burning, accompanied with itching, which may be due to a senile catarrh, with an acrid leucorrhœa. The discharge comes from the cavity of the wound, and while it may not be sufficient to attract attention, it may be sufficient to cause itching. I have found that curetting the womb was the best way of getting rid of this form of burning. With this I associate internal applications.

These women will often come to you with the statement that they have a tumor, when the whole trouble is that they have nervous flatus, causing distention of the abdomen. I wish that I could find a theory which would satisfactorily explain how it is that, in certain conditions of the nervous system, there will be the sudden distention of the abdomen with flatus. I am disposed to think that gas may be rapidly generated in the human body. Otherwise it seems impossible to explain this. The patient's attention is called to the swelling by the fact that the clothing is tight, and she will come to you with the statement that she has a tumor. Indeed, I have had physicians send me patients whom they thought had a tumor, when the whole trouble was due to a collection of wind. In such a case there would be resonance all over the front of the abdomen. This is a diagnostic sign. Another is, that by taking hold of the abdominal walls, you can lift up a large fold of skin, so that there would be no room behind it for a tumor of any size. Then if you percuss, you will find no evidence of a tumor. Of course, this does not serve to exclude a small tumor, but the patient consults you on account of a large swelling.—*Coll. and Clin. Record.*

DISEASES OF CHILDREN.

Intra-peritoneal Hemorrhage in a Newly-born Infant.

Before a recent meeting of an English medical society, Dr. KESER read notes of a case of intra-peritoneal hemorrhage in a newly-born infant of the male sex. The child was born at full term on April 29, and the labor was normal. The child was in a state of apparent asphyxia, but respiration was easily established. There was slight subconjunctival hemorrhage on the right side. On May 1 swelling of the

scrotum was observed, and the penis was œdematous. On May 4 the scrotum was much more swollen. The temperature in the rectum was 98°. The abdomen became swollen, and the lips were pale. The cord separated on that day without hemorrhage. The child died on the ninth day. There was an ecchymosis in the middle of the back. Melæna, or hæmatemesis, was not observed. The spleen was enlarged, and measured 9 cm. in length, 5 cm. in breadth, and 2 cm. in thickness. The upper half was swollen and congested, and very dark from hemorrhage, which seemed to have come from a lesion that looked like an infarct. According to Birch-Hirschfeld, the size of the spleen in a child eight days old was 4 cm. by 3 c.m. The peritoneal cavity was full of dark fluid blood, the amount escaping being about eight ounces. The splenic artery appeared to be normal, as well as the other branches of the aorta. There was no hemorrhage or infarct in any other organs. The mother had had eight pregnancies. The first child died at the age of eighteen days, but the cause of death was unknown. After this child five still births occurred. The seventh child was born at full term, was nursed by the mother, and remained well until the end of the fourth week, when epistaxis set in, followed by hæmatemesis and melæna ; large ecchymoses appeared on the trunk and limbs, and death ensued after a week's illness. The mother had no tendency to metrorrhagia or to any other form of hemorrhage. There was no hæmophilic history so far as could be obtained. Spontaneous rupture, as probably occurred in the case recorded, was very rare. Ritter, who collected 132 cases of hemorrhage in new-born children, had never observed it. Grandidier had observed intra-peritoneal hemorrhage, but the source of the blood was not discovered. Steffen found a rent in the convex surface of a soft spleen in one case of intra-peritoneal hemorrhage. Billard found at the necropsy of a child six days old a large quantity of blood in the stomach and intestine, and an enlargement of the spleen, which was ruptured ; there was but a teaspoonful of blood in the peritoneal cavity. Dr. Keser could not detect the source of embolism, but believed that there was an infarct in the spleen as the result of arterial obstruction. Dr. J. H. Morgan related a case of icterus neonatorum attended with severe hemorrhages, and due to congenital obliteration of bile ducts.

Contagiousness of Scarlet Fever.

In a recent paper before the Philadelphia County Medical Society, Dr. ARTHUR V. MEIGS announced the following conclusions as the result of his investigation :

1. Experience shows that scarlet fever is not so actively contagious as some of the other exanthemata, and that it is largely because it is so dangerous a complaint, and often so terribly sudden in its effects, that it is so considered, and that therefore,

2. It is proper that we, as physicians, should combat the unreasoning fear the public have of the disease, and should diffuse more generally an understanding of the real degree of its contagiousness, and should lay down rules with regard to what ought to be done to prevent its spread.

3. That it is, comparatively, slightly contagious during the first day or two after its outbreak, and that, therefore, it is very important to take all reasonable precautions, even if the disease is not very early diagnosticated ; in this respect differing radically from measles, whooping-cough, etc.

4. That the disease is not nearly so much carried from place to place by persons unaffected transporting it upon their persons and on their clothes as is commonly believed.

In the discussion which followed various opinions were expressed. Some of the members, Dr. Wilson, in particular, were of opinion that the contagiousness of scarlet fever was not overestimated. The majority, however, were in accord with the conclusions arrived at by Dr. Meigs.

Incontinence of Urine.

Dr. Ellis in *Diseases of Children:* —℞. Liq. strychniæ, B. P., ♏x. tr. belladonnæ, ʒ i-ʒ ss. inf. cascarillæ, ad. ℥ ij. M. Sig. ʒ j ʒ times a day to a child 3 years old.—*Illustrated Medical Journal.*

Etiology, Prophylaxis and Treatment of Blenorrhea Neonatorum.

This is a contagious disease, due to a particular virus which originates either in the vaginal discharges of the mother, or in the decomposition of animal matter. The former may be leucorrhœal, gonorrheal, or even simply catarrhal in character, the plain rule being that the more virulent the vaginal discharge the greater will be the danger to the infant's eyes. The infection may take place during the act of parturition or at a later period, therefore poisonous discharges from the breast or nipple may act as the cause of the disease. Sponges, towels, unclean fingers, etc., may also produce the same result. Nothing positive is known as to the period of incubation; it varies from three to seven days. If the disease appears within the first week of life, it is fair to conclude that it was contracted either during the act of birth or immediately afterward. When treatment is begun early and is carefully carried out the prognosis is good. Inflammations of the connective tissue of the eye are so common in new-born children that their importance is apt to be overlooked by parents and nurses,and this is especially the case among the humbler classes of society. The prognosis will depend upon the length of time which the disease has lasted, and upon the secondary changes which have occurred to the cornea. Even in its advanced stage three distinct forms can be differentiated. The first takes a mild course, and either heals spontaneously or in spite of improper treatment. The second is more dangerous, especially if the treatment be careless or ineffective, and the power of vision becomes impaired even when the tissues appear to be healing favorably. The third form, the most baneful of all diseases of the eye, is contracted from the acute gonorrhœa of the mother, and indicates total blindness as a result, from the beginning. In this disease prophylaxis is all important, and the rules which are prescribed are,

1. Every pregnant woman who suffers with an abnormal discharge from the vagina must be submitted to such treatment as will relieve her of it before the time of her confinement.

2. Examinations of pregnant women should alway be made with antiseptic precautions.

3. The strictest cleanliness must be carried out to prevent infection, whether from the mother or from any other source.

After the child has been born Crédé's method should be carried out as a matter of routine, that is, the eyes should be carefully cleansed with lukewarm water and a drop of a two per-cent solution of nitrate of silver instilled into each. If the child is not seen until the disease has manifested itself and there is

only a moderate degree of catarrh, after careful cleansing of the lids, a four per cent. solution of boric acid may be instilled several times daily and the result will usually be good.

In severer degrees of inflammation with abundant discharge astringents are indicated, a two per cent. oxid of zinc solution, for example, which may be used morning and evening until the lids are in good condition. If the disease is still further advanced, with much inflammation and purulent discharge, ice cold applications are indicated, and they must be changed very often. If the congestion is great, from six to ten leeches should be applied at the lower border of the nostrils. After the acute stage is passed a two to three per cent. solution of nitrate of silver may be applied to the lids, but this application should be made only by the physician, and with great care, and immediately afterward a weak chloride of sodium solution should be applied *with a fresh brush*, to neutralize any excess of the silver. This application should not be made oftener than once in twenty-four hours, but in the intervals the discharge may be washed away with a four per cent. solution of boric acid.

This treatment must be continued until the swelling of the lids and the purulent discharge have abated. The danger to the cornea lies less in the corroding effect of the purulent discharge than in the pressure upon it from the swollen lids by which the circulation is seriously interfered with, and gangrene results from want of nourishment. Two surgical means of overcoming the abnormal pressure upon the cornea from swelling of the lids, are external canthotomy and scarification of the connective tissue. Sometimes it will be necessary to do both operations, but if only one is required, it is thought that the former will be serviceable in the largest number of cases. Eserine is used by the author in all those cases in which the inflammation is severe and the cornea it still intact. He instills two drops once or twice a day of a solution which contains five hundredths of grams of eserine to ten grams of water. The same treatment is used only with greater frequency in cases where there is extensive infiltration of the cornea. Paracentesis of the cornea is not considered a desirable operation, and pressure bandages should seldom be used. An artificial pupil may be made, if the cornea remains cloudy after the disease has been cured, the operation being performed as soon as possible after recovery has taken place.—*N. Y. Medizinische Presse.*

Rheumatism in Children.

It is a dismal fact that a very large number of the cardiac affections of adult life are directly traceable to but imperfectly appreciated attacks of rheumatism in early life. Dr. ANGEL MONEY, writing on this subject in the *Lancet*, says that the rheumatism of children is one of the most hopeful affections that the medical man could have to treat, provided that the diagnosis be made at an early stage of its development—a very large proviso. But the affection might be easily overlooked on account of the slightness of the subjective symptoms. How important was it that a most careful physical examination should be made in all cases of even slight ailments. Some of the rheumatism of children was so insidious in its operation, that it was conceivable for the disease to be at work, without giving signs either of a subjective or an objective order.

A child who has any sign of rheumatism about it should be kept abso-

lutely all day and night in bed. Even if a mere urticaria or erythema be the only sign to be found, the bed should be tried for a day or two and the case watched for other members of the rheumatic series. Whilst holding that erythemata, the nodules, periarthritis, chorea, and heart disease were perhaps most frequently of rheumatic origin in children, Dr. Money allowed fully that any of these symptoms might own several other causes. Not all erythemata and chorea are rheumatic, nor is all periarthritis and endocarditis of rheumatic origin.

As to the further treatment the principles are of the simplest order, but at the bedside many details have to be borne in mind, and must be acquired by the practitioner himself, for no amount of lecturing could impart the necessities of treatment of any individual case. Dr. Money has faith in the employment of moderate quantities of bland fluids, like barley-water or toast-and-water, to which might be added the alkaline carbonates, the effects of which were probably, he suggested, enhanced by their administration in dilute form. Salicylate of soda or salicine was of value in some cases of rheumatism in children, but in his experience of less value than in adults, whose pain and joint affection were so much more a part of their suffering.—*Med. and Surg. Reporter.*

OBSTETRICS.

Placenta Prævia.

At the first meeting of the German Gynæcological Association, Dr. Bayer, of Strassburg, read a paper on this subject. Duncan's theory as regards hemorrhages in placenta prævia was formulated to apply only to the hemorrhages occurring only with the pains and sufices for these alone. Since that time we have learned of the formation of a lower uterine segment. This is not simply the lowest portion of the uterus, but a zone, characterized by some definite qualities, which does not take part in the contractions, and depends after labor in a condition of extreme relaxation. The hemorrhages have been brought into connection with the development of this lower segment, and since the latter forms during pregnancy, this apparently explains also the hemorrhages occurring during gestation. He then compared the various views respecting the origin of the lower uterine segment with the conditions existing in placenta prævia. According to the views of those who look upon the lower segment as a portion of the body of the uterus, the placenta prævia must be partly or wholly inserted into the segment. But this is a physiological impossibility, at least in cases terminating favorably, for owing to the absence of contraction or retraction of the placental site in the lower segment, every parturient with placenta prævia would be hopelessly doomed to death from hemorrhage. The other view according to which the lower segment forms from the supravaginal portion, explains the phenomena in a less forced manner. And then the questions arise, why does hemorrhage not invariably occur during pregnancy and why can the placenta be felt occasionally immediately over the closed cervical canal, or one with opened parallel walls? These objections cannot be explained by saying that the conditions vary in different cases. He concludes from the observation of twenty cases that in placenta prævia similar conditions prevail as in premature labor, that is to say, that in that condition the defective development of the supravaginal portion

is a typical phenomenon; that furthermore the internal os occasionally remains closed until the actual commencement of labor, and that in that case no lower segment is formed.

Dr. Bayer distinguishes :

A. Simple low insertion of the placenta, where the margin of the placenta reaches only into the neighborhood of the internal os. Here hemorrhage occurs only during labor, when a portion of the placenta remains in the area of relaxation, *i. e.*, when the lower segment is not formed normally. Accordingly he found low insertion of the placenta with hemorrhage during delivery only in premature labors in the eighth or ninth month.

B. True placenta prævia. To constitute this condition, it is necessary that some portion of the placenta at some time covers the internal os. There is only a difference in degree between placenta prævia centralis and lateralis ; the former may pass into the latter in the course of pregnancy or not until labor, when the supravaginal portion develops accordingly; inversely, the symptoms of placenta prævia centralis may be present, although only a small lobe projects over the internal os, when the latter did not dilate materially before the examination. As the internal os opens, the placenta inserted upon it must become detached or it must tear; in either case hemorrhage occurs. If this takes place during pregnancy, provided the latter continues after the first hemorrhage, we must expect alterations in the placenta. In the cases observed by him, such alterations were constant when hemorrhage had occurred previous to labor; they were always absent when the first hemorrhage took place at the outset of true contractions.

He distinguishes :

1. Hemorrhages during pregnancy; they characterize cases in which the os opens during pregnancy.

a. The placenta remains firmly on its seat, while the portion of the os internum tears; the laceration may extend to the membrana chorii; in this case labor will probably set in soon or the child die from loss of blood. If the internal os opens very gradually, more superficial lesions of the placenta may arise; according to the view of the author, a placenta marginata occasionally forms by the tearing apart of the placenta, flattening and relatively excessive spreading of the maternal surface. Perhaps such lacerations or tearing apart of the cotyledons over the internal os explain also the cases of placenta succenturiata.

b. When the internal os opens, the smaller lobe of the placenta is loosened; it falls into the lower segment which develops only to a slight degree; it becomes exsanguinated, flattens, atrophies, and detaches itself from its chorionic insertion. This form of placenta, therefore, can be looked upon as a partial marginata. Should the pregnancy continue long enough after the detachment of the smaller lobe, it is possible that a lower segment of normal extent will form subsequently; if the placenta at the same time is situated at the anterior wall, it will possibly be no longer palpable during labor as prævia, and in some cases not give rise to hemorrhage even during the pains.

2. Hemorrhages during true contraction. Here Duncan's explanation is valid. The uterus draws itself upwards at the placenta so long as the ovum remains intact. In this way, a larger and larger portion of the placenta appears free; the lobe thus detached looks thick, saturated with blood, bluish-red, and covered with clots. If it was the source of hemorrhage before or during preg-

nancy, there are besides corresponding alterations in the placenta. In rarer cases, the internal os remains closed until the onset of labor. Then there is an absence of those changes in the placenta which require time for their development, but there is also an absence of every uterine hemorrhage during pregnancy, and the course of the labor in such cases is usually more difficult, and more dangerous for mother and child.

a. The unfolding of the cervix during the pains progresses in a normal manner. In such cases the manipulations of the attendant are rendered more or less difficult, and the ordinary cervical lacerations—longitudinal tears through the lower portion of the neck—occur more readily. The first hemorrhage is then usually of special severity, as Spiegelberg has formerly pointed out.

Of much graver import are the cases in which the still undeveloped supravaginal portion shows a tendency to form a stricture—placenta prævia with stricture. In such cases, the internal os remains comparatively narrow during the pains, while the inferior portions of the cervix dilate in form of an ampulla. The author has met with a similar case in which the parturient lost no blood, not only during pregnancy, but even for two days during labor, although placental tissue was situated all around over the internal os. Immediately after labor, the patient bled to death from a fistulous cervical laceration extending as far as the peritoneum. He proposed the following divisions:

1. Placenta prævia with corresponding development of the supravaginal portion and hemorrhages during pregnancy and alterations in the placenta. He observed ten cases with hemorrhages during pregnancy; among these were two cases of placenta marginata totalis, six of partial placenta marginata, two of placenta succenturiata. Eight children were born living, one at six months, one dead. All mothers recovered.

2. Placenta prævia with cervix remaining intact until the onset of true labor; no chronic alterations in the placenta, no uterine hemorrhages during pregnancy. Aside from three cases of low insertion of the placenta and hemorrhage with premature labor, he had observed seven cases of placenta prævia without hemorrhage during pregnancy. In six of these labor occurred at term. Two children were born living, five dead; one mother died of hemorrhage immediately after labor, one had a severe attack of parametritis, one required the suturing of the cervix. —*American Journal of Obstetrics.*

Retroversion of the Gravid Uterus.

PINARD and VARNIER, after a careful clinical and anatomical study, conclude as follows: 1. Cicatricial contraction of the pelvic connective tissue, especially in the broad and utero sacral ligaments, rarely results in retroversion and fixation of the gravid uterus. 2. Adhesions between the bladder and uterus and the intestine, or between the latter and the pelvic tissue, may prevent the gravid organ from ascending. Although the tissues in the immediate vicinity of the uterus are modified by the pregnant condition, the extensibility of old *extra-uterine* adhesions is not affected.—*N. Y. Medical Journal.*

[Intra-pelvic adhesions, in our experience frequently yield during gestation, even when complicated with retroversion That in a large proportion of such cases the uterus empties itself about the end of the third month, is doubtless due more to the condition of the endometrium attending the misplacement, than to the adhesions alone.] J.

DISEASES OF WOMEN.

Cotton-Root as a Uterine Hæmostatic.

DR. HENRY GARRIGUES, in a paper read before the Medical and Surgical Society of German Physicians of New York, and published in the *New Yorker Medizinische Presse*, as reported by the *Pittsburg Medical Review*, Dr. Garrigues stated his experience with the cotton-root (*Gossypium herbaceum*), of which he has made very extensive trials in all forms of uterine hemorrhage during the last two years, and which, in his hands, has certainly proved remarkably successful.

He treated one hundred and thirty-nine patients afflicted with different forms of uterine diseases, in whom hemorrhage had been a very prominent symptom, with this drug, with the following results:

	Relieved.	Not Relieved.
Anteflexion	33	2
Anteversion	1	..
Retroflexion	8	..
Retroversion	1	2
Prolapse of the uterus	1	..
Endometritis hyperplastica	3	1
Pelvic inflammations (perimetritis, pelvi-peritonitis, parametritis, oöphoritis, salpingitis)	5	..
Subinvolution	2	..
Laceration of cervix	15	2
Mucous polypus	1	..
Fibroid	7	2
Sarcoma	1	..
Carcinoma	2	..
Following labor	3	..
Following abortion	3	..
Sanguineous leucorrhœa after menopause	1	..
Menorrhagia and metrorrhagia from unknown causes	38	5
	125	14

If the same patient presented different affections at the same time, viz., laceration of the cervix, cellulitis, and flexion, she was only mentioned once, and that under the diagnosis which is the most frequent cause of hemorrhage, *e. g.*, in the case cited, under flexion.

When there were indications for other methods of treatment, these were fulfilled, viz., the polypus was removed; in case of ectropion of the cervical mucous membrane, injections with liq. ferri sesquichlor. (℥ ss to one pint of water) were ordered; in hyperplastic endometritis the curette was employed; malpositions were corrected and a pessary introduced; pelvic inflammations were treated with hot douches and glycerin tampons, and syphilis by specific medication.

Though this combined treatment was employed, he feels justified in drawing the same conclusions in regard to this root as a hæmostatic, as he formerly did when using in its place fluid extract of ergot, fluid extract of viscum album, tincture of cannabis indica, tincture of capsicum, and bromide of potassium. Since he commenced to use the cotton-root he has always prescribed it first, and if it failed he has had recourse to the old remedies. In cases in which he could not detect any particular cause for the hemorrhage, he used cotton-root alone. He treated many other cases in hospital and private practice in the same way, of which he has, however, kept no record.

In the beginning he prescribed the fluid extract, but found it of very little benefit if not taken in very large doses, which were not tolerated well by the patients. These cases, however, were omitted in the above table, which has reference only to those treated by the drug in the form of a decoction. He directs to boil three large teaspoonfuls in a pint of water for fifteen minutes, then to strain it, and to drink it cold in three portions,—morning, noon and night. This decoction has a red color, something like raspberry lemonade. It has an aromatic, slightly astringent taste, and is not unpleasant to take.

This decoction has tonic properties which are of value, as preparations of

iron are contra-indicated until all tendency to bleeding has ceased. Patients should take it for months. During menstruation they should discontinue it from two to four days, according to the amount of blood lost, when it should be resumed again. Like all other remedies, it is not a specific ; in some patients it fails entirely, while other remedies, especially ergot, give relief ; in other cases all hæmostatics are absolutely useless. He has found it, however, preferable to all other remedies in the majority of cases. It seems to have a most remarkable effect in neoplasms ; in fibroids it very often not only relieved the hemorrhages, but also the pains. In cases of cancer and sarcoma of the uterus, he found it very beneficial as a hæmostatic and tonic.—*Therapeutic Gazette.*

Removal of the Uterine Appendages.

I was recently asked by a medical friend what I thought would be the effect on the future population of any country, if in every large manufacturing centre there were established one or two practitioners who frequently operated for the removal of the uterine appendages. To this I replied that if the said practitioners were conversant with the conditions under which the operation should be performed, it would have little or no influence, because the removal of the normal ovaries should be, and is in fact, a very rare occurrence.

I believe that in nearly every case where the operation is called for, the capability of maternity has been already destroyed by some abnormal condition of the ovaries or tubes.

An eminent metropolitan gynæcologist, who cannot certainly be accused of over activity in this operation, said in a recent address: "I am not, of course, contesting the propriety of ovarian extirpation, when the ovaries are themselves so diseased as to be useless for functional purposes."

The removal of normal ovaries may be justified in a very few instances of deformity, where the birth of a living child is impossible, or might be reasonably expected to prove fatal to the mother, and it may be also in some few cases of myoma where the operation is performed to check the further development of the growth, that the ovaries are normal, or at least do not present signs of disease such as with our present limited knowledge we can recognize. Generally, however, in myoma, the ovaries are sufficiently altered as to leave no doubt of their pathological state.

The most frequent conditions which give rise to indications for the operation appear to be of an inflammatory character; for example: (*a*) a localized peritonitis glueing together with various degrees of intensity the intestines, omentum and appendages; (*b*) a pelvic peritonitis glueing together the tubes and ovaries to each other and to the pelvis, or in the folds of the broad ligament, and generally occluding the fimbriated extremities of the tubes; (*c*) some causes, operating from the interior of the tubes for example, the escape of some blood through the tube end into the pelvis, or the extension of the gonorrhœal poison upward to the tubes and ovaries.

The first two of the above named conditions have appeared to me to be of much the most frequent occurrence, and to have their origin in some septic poison in connection with abortion or confinement. The history in such cases is often singularly clear in pointing to this ; namely, a patient has one or more children, perfectly healthy and well, until at length comes a miscarriage or confinement which is followed by some symptoms of more or less gravity; at any rate indicating that she is ill

with some inflammatory or septic process referable to the pelvis. She is thenceforth sterile, becomes a chronic invalid, and in most cases the enlarged, tender organs are to be felt by double palpation on each side through the vaginal roof.

The gonorrhœal origin of a considerable number of cases is, to my mind, undoubted, and it tends to throw a flood of light on the gravity of gonorrhœa in women. Hitherto gonorrhœa has only been regarded as a grave disorder from some of its sequelæ in a few males who have had it, and it has been looked upon as a very mild affair in women, to be treated, as of little consequence, by the use of injections, hot water douches, and local applications to the inflamed vaginal mucous membrane. But now that its consequences are known to be serious, and not uncommon, we must change our views concerning its comparative innocuousness, and we should come to regard every woman who has a gonorrhœa, however mild, as possessing the potentiality of a serious and may be fatal, pyosalpinx.

The therapeutics of this subject, by which, of course, I mean the successful treatment by operation, is far in advance of its pathology, and there is a need of able men, other than busy practitioners, to devote time to working at the pathology of the many and varied diseased conditions of the uterine appendages. Abundant material is always at hand in the practice of gynecologists who perform this operation. We want to know better than we do at present the significance of (1) atrophied or cirrhotic ovaries, (2) enlarged ovaries, whether persistent or temporary, œdematous or cystic. Where is the line to be drawn between what we call cystic disease of the ovaries and cystoma? Is the difference mainly one of degree in the size of the cysts, or of encroachment of the cysts on the stroma of the ovary? Is there not sometimes a condition of the broad ligament and Fallopian tubes which has become permanent and which corresponds to varicocele in the male, and which, by pain, disables the patient from leading an active life, and may justify removal?

I have seen some few instances, perhaps half a dozen, where there was a small cystoma, say the size of an orange, with sometimes clear and sometimes dark or sanious fluid, in direct association with very adherent appendages, the result, according to the history of the patient, of some antecedent inflammatory symptoms. These cysts have seemed to be of more recent date than the symptoms which indicated the inflammation and subsequent adhesion of the appendages. I would ask, have the adherent organs, as regards their adhesion, had any casual relation in producing the cyst, and if so, what?

One great difficulty in operating upon the appendages has frequently been raised, and that is the difficulty of diagnosis. I can quite sympathyze with the difficulty on the part of those who are not frequently seeing such cases. I do not think that the difficulty will ever be entirely removed. In some patients the case is perfectly clear beforehand, and may be easily diagnosed as a "tube case," in which all the organs inside the pelvis may be mapped out with more or less accuracy and distinguished by double palpation, and the enlargement which is the cause of the trouble may be clearly made out. In some patients we have to rely upon the subjunctive symptom of pain alone, in others there are at least some objective features which guide us more or less truly, such as metrorrhagia, enlarged uterus, and most frequently a fullness, a

lump, or a small tumor. The clinical history is also generally an invaluable help.

In the acute and subacute forms of pyosalpinx the temperature is usually a guide; whereas, in the chronic form, when the tubes contain only inspissated pus, the temperature is not often found to be above the normal.

The probability, or the recognized possibility, that a pyosalpinx may burst and cause a fatal peritonitis, is not enough in itself to justify an operation, over and above what is to be gained in relief to the patient by its early performance. One of the results of the chronic inflammatory disease on the ovaries is to render them apparently quite pultaceous or rotten ; sometimes a large hæmatic cyst, probably the result of an abnormal corpus luteum, is present, with very little real stroma left. Hæmato salpinx, though rare, is, I expect, much more frequent than the text books of the past would lead us to believe.

I shall only refer to the operation for the removal of an early ruptured Fallopian pregnancy as having been led up to by operations on the appendages by other conditions.

When menstruation occurs with more or less, or sometimes with perfect regularity, it is thought to be due to the operator having left a small portion of the ovary behind, or not having removed a sufficient length of tube. I cannot at present accept this view, but I am not prepared with any alternative explanation. I know quite well that in some cases of myoma it is very difficult, even impossible to remove the whole of the ovary, even though the silk is passed some distance beyond it. When the ligature in such cases is drawn up tightly, it is seen that its distance from the ovary appears to have become diminished, and that a very little space is left for the scissors without encroaching upon the gland, often not enough to leave sufficient for safety on the distal side of the ligature. I have long been in the habit of tying the tubes as near the uterus as I can get, and yet menstruation will sometimes occur. In a patient of Mr. Bethell of Bridgenorth, I removed in November last the appendages for myoma, and entered in my note book : "appendages completely removed." This I do when I am quite satisfied that they are completely removed ; yet I find that in this patient menstruation has been quite regular, though not profusely so, up to the present time.

As regards the performance of the operation itself, there is every variation possible between extreme simplicity and extreme difficulty. Without adhesions it is perfectly simple and safe, and ought to have no mortality other than what is outside and beyond preventable causes, for example, tetanus, etc. If the inflammatory symptoms have been recent, so that the adhesions are slight and easily separated, the operation is still easy, and safe. In old standing cases, where the appendages are firmly glued to each other and to the pelvis by tough, fibrous bands, the operation is often one of very considerable difficulty, involving much patience on the part of the operator. I believe there are few surgical manœuvres more fatiguing than some of these, and it requires some practice to attain a perfect *tactus eruditus*, so as to be able to accurately distinguish the line of adhesion between the parts to be removed. I hear of cases that cannot be completed, and I am conscious of such in my own practice, but I feel that such are a reproach of my skill and dexterity, and I am coming to feel that when once attempted

they ought always to be carried through, if not, the fault lies rather with the operator than with the inherent difficulties, great though they may be, of the case. The bleeding caused by the separation and tearing of these firm adhesions is often great. It is usually controlled by sponge pressure, or insertion of a drainage tube and the pressure of the binder round the abdomen. All this, to my mind, is a strong argument that such operations should be had recourse to much earlier than they are.

Seeing that inflammatory conditions after confinement are such a large factor in producing chronic invalidism, with sterility, pain lasting for years, and inability to discharge the duties of life, we are justified in advising our patients to submit to operation much earlier now than was thought of a few years ago. And if we can catch the cases in the acute or subacute stage, so much the better; I mean when there are the symptoms of recent inflammation present.

In point of difficulty of performance I would class first the cases of chronic inflammatory disease of the ovaries, where much discrimination is required and difficulty experienced in picking these organs out of their bed. The adhesions seen on the ovary, when floated in clear water after their removal, testify to their having been firmly lodged in the pelvis. How it is that such adherent glands have not been fully recognized in the post mortem room seems difficult to understand. Next to these are cases of pyosalpinx, especially the acute and subacute, where the tubes form a bag of pus of considerable size.

A short incision is, I am convinced, of great importance in most abdominal operations. The actual length of the cutting *per se* is of no real consequence, and can make no difference to the patient other than that she will have more tendency to a ventral hernia afterward with a long than with a short scar. But during the operation, with a short incision, the probability is that no other parts will be interfered with or opened up than those which lead directly from the incision down to the organs to be removed. Hence drainage, when necessary, will be more likely to be effectual; and the more the surrounding parts are disturbed, so much more is the door opened for introduction and absorption of septicity. The short incision—I mean one of one inch and a half or two inches—adds very little to the difficulty, and it can always be prolonged a little if found necessary, to get below the organs in a fat subject or a deep pelvis. I think too, that the intestines incommode the operator less with the short incision.—*British Medical Journal.—Obstetric Gazette.*

Exploratory Incision as a Dernier Ressort for Diagnostic Purposes.

Dr. R. STANSBURY SUTTON (*Journal American Med. Asso.*): Many cases will present themselves in which a diagnosis is not possible. It will not be possible to determine anything beyond a certainty that the disease is within the abdominal or pelvic cavity. A tumor may be present; no certainty of its relations may be ascertainable through the closed abdominal wall. What is to be done? Will we satisfy our consciences that our duty is done and turn away, or temporize with drugs? It is to be hoped not. In every man or woman dying or in danger of dying from an obscure intra-abdominal trouble an exploratory incision should be made and the diagnosis should, if possible, through it, by touch, or touch and vision, be perfected. Is such a procedure to be lightly undertaken? By no means

But with the following precautions it is safe :

1. Have the patient clean from head to foot, and the surface of the abdomen especially clean, made so by soap and water and a brush. Surround the parts with clean towels fresh from the hot iron.

2. Have your hands and forearms scrupulously cleansed with soap and water and turpentine.

3. Have your instruments clean and immersed in hot water.

4. Thoroughly etherize your patient.

5. Make an incision two inches long; before opening the peritoneum secure every bleeding vessel. Pass in two fingers and make search.

6. If you have failed to gain the desired information, withdraw your fingers, pass in a sponge, locate it directly under, below and above the wound, and enlarge the latter with a clean cut over the sponge, to a length sufficient to let in your hand. Secure all bleeding vessels, withdraw the sponge, and pass in the hand and complete the search. Through such a wound much may also be seen. Never make a longer cut than is necessary, and make a clean cut.

7. Before closing the abdomen cleanse the cavity thoroughly, but be gentle in your use of the sponges ; if you deem it necessary, pour in a pitcher of clean warm water and wash the cavity out. Gently sponge it dry. In closing the wound, pass the sutures over a flat sponge laid beneath the wound.

8. Reject the use of carbolic acid or bichloride of mercury in your operations ; they are useless and a source of danger. They may be used in cleansing your hands prior to operating, but they are to be kept out of the peritoneal sac. Keith, Tait, Bantock, and others abroad have proved the worthlessness of carbolic acid, and I have for some time been satisfied from experience that they are right.

9. Never permit any one but the operator to pass a hand into the cavity, unless his hand has been prepared by a careful cleansing with soap and water and brush, and with turpentine or a 1.200 solution of bicloride of mercury. Even a 1 in 20 per cent. solution of carbolic acid is not reliable for this purpose.

10. In tying the sutures, dry the lips of the wound as you go along with a bit of iodoform gauze.

With the above precautions I have opened the abdomen many times, and I have yet to see a single wound so treated fail to unite by first intention.

Complete Laceration of the Perinæum, Involving the Sphincter Ani.

In the discussion of a paper by Dr. P. F. CHAMBERS, published in the *N. Y. Medical Journal*, March 12, 1887, the following points were brought out:

Dr. A. F. Currier said that he approved of the reader's method of operation, and thought that the primary closure of the rectal rent by interrupted sutures secured within the rectum was the most satisfactory method of operation which had been devised. He agreed with the reader that worm gut was probably the best material for sutures within the rectum. In operations last year he had used catgut and whale-tendon for the rectal sutures. The former had given satisfactory results; the latter had been unsatisfactory, as it had been dissolved too quickly. The whale-tendon had also been tried without satisfactory results in a case of extensive recto-vaginal fistula just behind the sphincter ani, but in a syphilitic patient. In that case the fistula was first closed *per rectum* by a line of sutures in the long axis of the

long axis of the rectum, and then *per vaginam* by a line of sutures in the transverse axis of the vagina. The result had been a failure, as he feared it must be in most cases where the tissues had been poisoned by syphilis. His attention had first been called to this fact while in the Woman's Hospital by a case in which Dr. Hunter had operated three times and had always failed of success.

The speaker believed thoroughly in the necessity of evacuating the intestines completely before performing this operation. To accomplish this, the use of cathartics should be begun at least a week before the time of operating. Failure resulted in many cases because large masses of fæcal matter forced their way down on the third or fourth day after the operation. The speaker believed with Dr. H. T. Hanks, who had made some excellent observations upon this subject that the bowels should be moved daily and kept loose.

The President believed that the operation should never be done in cases in which there was a history of syphilis. He had called the attention of the late Dr. Bumstead to this matter, and the latter had fully coincided with his views, and had expressed his opinion to that effect.

Dr. W. G. Wylie related the history of a case that had been sent to him by Dr. W. T. Bull, in which there had been laceration through the sphincter ani, with a history of precedent syphilis. He had operated, and, although the result had not been all that could have been desired, he had succeeded in giving the patient a useful sphincter.

The President thought that this case was an exception to the rule. In his experience operations upon the sphincter had only made the patient worse in such conditions, and, if a stricture was present, it was made worse rather than better.

Dr. E. C. Dudley said that he was in the habit of closing the rectal wound with silver wire, beginning to pass his sutures at the angle of the rent, after suitable paring of the tissues. He believed that silver was preferable to all other substances as a material for sutures. Trouble did not necessarily follow if the sutures were not removed, and he admitted that he had formerly had difficulty in removing them. Now he introcuced a small Sims's speculum into the rectum, and with its aid he had no trouble in removing [the sutures. He believed that the best plan in respect to moving the bowels was to begin on the second or third day after the operation, and cause them to be moved daily thereafter.

Dr. A. P. Dudley said that it was an important question as to how long the sutures should be allowed to remain. He thought there was often a tendency to remove them too soon after the operation. He had done the operation five times, and had been successful in all cases but one. In that case menstruation had occurred soon after the operation was performed, and the blood had apparently softened one of the catgut sutures. A fistula remained at that point, though all the rest of the wound had healed satisfactorily. He believed that particular pains should be taken to keep the bowels open. His plan was to give citrate of magnesium in doses of a wineglass sufficiently often to keep the fæces soft. In one of his cases he had allowed the sutures, which had been shouldered and shotted, to remain twenty-three days, and the result had been a success where failure had seemed imminent.

The President thought that there should always be borne in mind, when

passing sutures, an essential difference which obtained between silver and silk, or gut—viz., that the silver was unyielding, and should be passed a quarter of an inch, or more if necessary, from the edges of the wound. If the suture was properly twisted and shouldered, there would be no tendency on the part of the edges either to fold or gape, while, the any of the very flexible suture materials which must be secured by tying, the sutures must be passed quite near the edges.

Dr. E. C. Dudley thought that the method of moving the bowels immediately after, or within a few hours after, operation was objectionable, as it was liable to excite or increase congestion, and might have an unfavorable effect upon the healing process.

Dr. J. B. Hunter said that he had done the operation under discussion eighteen times within the past six years, had sometimes found it neecssary to operate two or three times before being successful, and had failed entirely in two cases. He had tried various methods, but preferred the one which was begun by raising the crest of the proctocele. He used silver for sutures both in the rectum and in the vagina. He thought that twisting the suture gave better control over the wound than the use of the spiral. Perforated shot was sufficient to secure the suture without the use of the spiral. He thought that the silver wires could usually be removed without trouble. It was important that they should be so twisted that there would be no tension upon the wound.

Dr. Chambers, in closing, said that, in his opinion, the worm gut was more efficient for suturing purposes than either silk or catgut. He also thought it had decided advantages over silver wire. His plan was to leave the ends of the sutures hanging from the anus. Another advantage over the silver wire was that there was no irritation or pain from the worm gut during the process of healing.

DISEASES OF CHILDREN.

Turpentine in Chronic Diseases of the Respiratory Organs in Children.

Dr. Descraizilles describes several cases where the diagnosis lay between chronic bronchitis and tuberculous infiltration, with the physical signs of cavities, in which turpentine produced very beneficial results.

In the *Revue Mensuelle des Maladies de l'Enfance*, the author describes the preparation which he uses as a solution in alcohol or water of turpentine, which is "*hydrated*,"—has been long exposed to the air. He commonly used the following formula: Turpentine, grs. xxx; alcohol, f 3 x; water, f 3 v.

A quantity not exceeding 9 grains of the solid daily gave excellent effects. In omitting alcohol from the solution at least 6½ ounces of water will be required to 15 grains of the solid, and it is then advisable to add an astringent syrup. Such solutions are best given at meals.

The effects were the rapid lessening of foul expectoration and a tonic influence upon digestion.—*Therapeutic Gazette.*

Urine in Children's Diseases.

Dr. Alexandra J. Eckert (*Vratch.–Lond. Med. Rec.*), of St. Petersburg, states that she has made 1,500 analyses of urine in 104 children suffering from various diseases. Her conclusions are as follows: 1. All affections considerably disturbing nutrition of the child's system, and running their course in association with a high febrile state, give rise to albuminuria in an overwhelming majority of cases. 2. The character-

istics of albuminuria are usually dependent upon the intensity of the morbid process, and the duration of the febrile period. 3. As a rule albumen rapidly disappears after abatement or cessation of fever. 4. Non-febrile affections, as well as those accompanied only by slight fleeting febrile movements, seldom give rise to albuminuria of any considerable degree; and when they cause albuminuria, it occurs only as a phenomenon of very short duration.—*Canada Lancet.*

Antiseptics in the Treatment of Diarrhœa in Children.

DR. EMMETT HOLT, in an interesting paper published recently in the *N. Y. Medical Journal*, says in conclusion:

Is not the rational treatment, then, to clear out the intestine as promptly and thoroughly as possible, and then address our energies towards stopping further decomposition? In other words, to treat the cause and not the result?

How should the antiseptic be administered?

The salicylate of sodium I have been accustomed to prescribe in doses of from one to three grains every two hours, according to the age, from three months to three years. In these doses the aqueous solution is tasteless, and can be readily given in food or drink. I have never seen it produce vomiting, but often have seen severe and persistent vomiting controlled by it.

Naphthalin, although possessing a strong odor is not disagreeable to the taste. On account of its insolubility, it is best given to children rubbed up with some inert powder, like sugar of milk. It should be used in a little larger doses than the salicylate—*i. e.*, gr. j to gr. v in young children, according to the age.

Resorcin must be used in smaller doses, gr. ½ to gr. ij, at corresponding ages. It is bitter, and not so easily given, though freely soluble in water. The bichloride was used in doses of gr. 1–120 to 1–100, but, even in these doses, I have more than once seen it produce vomiting.

In all cases I have insisted upon the antiseptic being given at short intervals, as many small doses are much more likely to succeed than a few large ones.

From the foregoing discussion the following conclusions are drawn:

1. Summer diarrhœa is not to be regarded as a disease depending upon a single morbific agent.

2. The remote causes are many, and include heat, mode of feeding, surroundings, dentition, and many other factors.

3. The immediate cause is putrefactive changes which take place in the stomach and bowels in food not digested, which changes are often begun outside the body.

4. These products may act as systemic poisons, or the particles may cause local irritation and inflammation of the intestine.

5. The diarrhœal discharges, at the outset at least, are to be looked upon as salutary.

6. The routine use of opium and astringents in these cases are not only useless, but, in the beginning particularly, they may do positive harm, since, by checking peristalsis, opium stops elimination and increases decomposition.

7. I do not deny nor undervalue opium in any other forms of diarrhœa than the one under discussion.

8. Evacuants are to be considered an essential part of antiseptic treatment.

9. Experience thus far leads me to regard naphthalin and the salts of salicylic acid as the most valuable antiseptics for the intestinal tract.

Filatoff: A New Method of Taking Temperature in Children.

The difficulties in taking the temperature in children are but too well known, and an important symptom often fails of accuracy of record, either because the child offers too much opposition, or because the mother cannot endure the crying of the child for the quarter of an hour during which the thermometer must remain in the axilla, or the five minutes during which it should be kept in the rectum. In cases of this kind the author recommends the use of a warmed thermometer which need be kept only for a moment in the axilla, and with which the fall and not the rise of the column of mercury is to be observed. The result will not vary by more than one or two hundredths of a degree from that which is obtained by the ordinary method. The thermometer may be warmed either by rubbing the bulb in the bare hand, or in a handkerchief, and 42° to 43° C. may be quickly indicated. It should then be quickly placed in the axilla and allowed to remain one or two minutes. The author is satisfied with the experience which he has had with this plan up to the present time.—*Arch. f. Kinderh.*

Weaning.

This important process has called forth the most careful thought on the part of such eminent men as Trousseau, Archambault, Jules Simon and others. If it is done prematurely, suddenly, or at an unseasonable period of the year, one may expect as a result diarrhœa, gastro-enteritis, or *cholera infantum*, this result being due to the irritation which is caused to the organs which are accustomed to and adapted to the digestion of human milk. If an acute affection is produced, the symptoms are indigestion, diarrhœa and vomiting, which may come on in repeated attacks and may quickly prove fatal. Acute gastro-enteritis sometimes takes the form of cholera infantum. Instead of the acute form there may be a sub-acute or a chronic one, the belly becomes enlarged, the stomach dilated, and rachitis with its well-known pneumonia may intervene. In other cases the skin, mucous membranes, and the lymphatic glands may be involved, and scrofula appear as the result of improper weaning. Two questions are to be considered in connection with this subject: (1) when (*i. e.*, at what age) should weaning take place; (2) how should it be done. Of decided importance also is a consideration as to the time of the year when this may best be accomplished. The summer is the least desirable season for it for reasons which will at once occur. The most favorable is the winter, and then, in turn, the spring and the autumn. As to the proper age for weaning Trousseau made the mistake of laying down the general rule that it should be accomplished when the child had cut his sixteen teeth, whatever might be his age. But if a child has been nursed at the breast he will have his teeth when he is twelve or fifteen months of age; while if he has been nourished in part at the breast and in part by the bottle, the first dentition will not be finished until he is two years or two and a quarter years of age. As to the disturbances which Trousseau attributed to dentition, or to weaning in the interval between the eruption of two groups of teeth, it is believed that they have been exaggerated. The age of eighteen months is considered as a good average for the period of weaning, modifying circumstances occasionally requiring an earlier time, but more frequently a later one. Should weaning be attempted earlier than the twelfth month, it will be attended with danger

to the child's life, and this attempt is in reality responsible for the great mortality among infants. When artificial nourishment must be adopted, milk alone should be used, and the author protests against the soups, panadas and other more or less indigestible substances which are given to infants from four to six months of age under the pretext of preparing them for weaning. He considers that the advice of Trousseau and others upon this point has done great harm.

How Should Children be Weaned.

How are children to be weaned? If the child has reached the age of twenty months the question is easily answered. If he persists in wanting the breast, having already been fed, in part, upon milk, eggs, and other easily digested food, the nipple and the surrounding surface may be smeared with some saline or bitter substance, and this will speedily produce the desired result. Should weaning occur between the ages of twelve and fifteen months the difficulties will be greater, for diarrhœa, athrepsia, and rachitis are among the possible results. Milk should still form the basis of the child's diet, and this should continue for several months, soft boiled eggs and light gruels being added. When the child must be weaned under the age of twelve months, the greatest care must be taken, mother's milk should be very gradually replaced by cow's milk, or better by asses' milk. Should cow's milk be given it must be heated over a water bath, and fed from a cup—not from a spoon or a bottle. Any food excepting milk must be considered positively dangerous for children under the age of twelve months. Meats, vegetables, and other substances which are fit only for strong stomachs must be withheld for months after the breast has been entirely abandoned. Wine, coffee, beer, and cider must also be entirely withheld from young children.—*L' Union Méd. du Can.—Arch. Pediat.*

Treatment of Prolapsus Ani in Infants.

Dr. Betz, of Heilbronn, relates in the *Memorabilien*, the case of an infant five months old which had been afflicted with prolapsus ani for five weeks. Cold water enemata, ice suppositories, dusting with pulverized alum, tannin locally and internally, opium, bromide potassium, and even injections of ergotine had been employed without benefit. The little patient was in a deplorable condition, greatly emaciated, covered with large and small boils, and intertrigo; it was incessantly straining and crying. The prolapsed bowel was a livid, conical plug, $5\frac{1}{2}$ cm. in length; it was readily reduced, but pressure being removed it was shot out again by the straining of the child. Profiting by a knowledge of the treatment previously used, he at once determined to resort to nitrate of silver applications, but as the application of the stick caustic always acts unequally on the mucous membrane, and may result in ulceration, he made a solution of argent. nitr. 1.0, sulphuric ether 5.0, alcohol 25.0. This solution, though it gives rise to some smarting, can be evenly and equally applied and enters the tissues to a considerable depth. The prolapsus was thoroughly painted with the above solution, and even after a few minutes it became paler, began to shrink, and could be reduced more readily. To act on the upper portion of the mucous membrane a small piece of alum was introduced high up into the rectum. To prevent the bowel from slipping down, and to exert continued pressure on the anus, the nates were firmly pressed

together and held in this condition by three broad strips of adhesive plaster, which were applied on either side, running from the anterior surface of a thigh across the seat to the opposite anterior surface of the abdomen. The next object was to stop the tenesmus and to prevent defecation, which was accomplished by keeping the child slightly under the narcotic influence of opium, and restricting its diet to small quantities of milk and water. The tenesmus stopped at once, and flatus was freely passed in twenty-four hours. The dressing was reapplied after two days. No prolapse occurred. The anus was cleansed with a wad of cotton steeped in carbolized oil, five per cent., and a piece of alum was again inserted. The anus was found drawn into folds and contracted. After three days a new dressing was necessary. The gut being slightly prolapsed, was treated with the stick caustic. Two days later the dressing was permanently removed. Stools came on without tenesmus. In order to insure contraction of the anus, he ordered it touched with alcohol for a few days. The cure was completed in eight days. Betz, though he is inclined to attribute much of the rapid success to the application of nitrate of silver, claims that the combined treatment carried out by him is entitled to the credit for the same, and would in a similar severe case not do without the adhesive dressing, the opium, the restricted diet and the alum suppository, in addition to the nitrate of silver application, while in a milder case nitrate of silver, opium and restricted diet would be sufficient for a cure.—*American Lancet.*

Artificial Feeding of Infants.

In introducing the subject, the President said that all would admit its importance, and that it depended upon (1) the inability of the mother to afford nourishment, (2) the demands of the child for the materials for growth, repair, and heat-production, and for protection from indigestion and the numerous disorders of malnutrition. The prominent indications of the non-agreement of any food were excessive colic, vomiting, and diarrhœa. The results were seen in loss of flesh, strength, vivacity, and color ; non-development of the general body, or of parts, as of the teeth ; retardation of infantile accomplishments, psychical or physical, or even loss of those which had existed. One or many of these conditions might exist, and call for attention on the part of the physician to the imperative needs of the little patient. In choosing a diet there was no established law, save that the food should be easily digested, non-irritating, and suitable for nourishment and heat production. If the infant had been nursing its mother, the quantity might be alone at fault. In all such cases artificial food should be made to supplement and not replace the natural supply. The amount of artificial food must vary with each case, from every alternate feeding to two or three feedings daily. Should the quality of the mother's milk be at fault, or should she be unable to nurse her child from any other cause, a complete substitute must be furnished.

Here unquestionably the best, because furnishing the most rational substitute, was the wet-nurse. But rational though it was, it had objections which were sometimes almost insurmountable. Among these were the expense incurred, the difficulty of getting one whose milk was altogether satisfactory, or, this agreeing, the unsatisfactoriness of the individual herself, who, reins in hand, might, if inclined, drive the family to

distraction. Apart from this, many mothers objected to having their little ones nurse at other breasts than their own, even when the substitute was cleanly in person, character, and habits, and much more so if doubt existed, as it often must, upon these scores. While not decrying wet-nurses, indeed while maintaining that for some infants they were the only means of salvation, the speaker thought that in most instances they were not indispensable.

In choosing a substitute for human milk for healthy children, the speaker did not approve of the so-called infant-foods, manufactured on a large scale, and kept on the druggists' shelves. These substances, many of which had much virtue, found a sphere in the management of the sick, but, as a rule, might be eschewed in arranging a food for the well. For most babies condensed milk answered best for the first three to six months of life. Here, again, a choice might be made. There were several varieties of this food, most of which were supplied in quantities to grocers and druggists, and lay for an indefinite time on the shelf or counter, during which time they were liable to terioration. This was not a matter of theory, but had been proved in more than one instance by an attack of severe indigestion and diarrhœa on using the contents of a new can. The brand most satisfactory in the speaker's experience was Canfield's, which was manufactured in Philadelphia, and was for sale only at the manufacturer's office, where its freshness and purity were guaranteed. Or, if the sweetness of the condensed milk was an objection in an individual case, the "evaporated cream," a partially condensed milk prepared by the same firm, might be used, having it served fresh every day, or every alternate day. Unquestionably, condensed milk was preferable for the young infant to the fresh (?) milk furnished by the middleman in our large cities. If a child taking condensed milk was constipated, a small quantity of Mellin's, Horlick's, or Nestlé's food might be used in each bottle, and would usually be all sufficient. At least, until a food had proved satisfactory, the infant should be weighed at the end of each week, and should gain from three or four ounces to a pound weekly. If severe colic, vomiting, or diarrhœa occurred without cause—such as teething or exposure—some change was indicated. This would usually be the case, where condensed milk was the diet, somewhere from the third to the eighth month.

The addition of oatmeal to the food might be all that was needed. It should be thorougly cooked for three hours, then strained through a cloth, producing a white, semi-translucent substance, of about the consistence of starch as used by the laundress. Of this from one to three tablespoonfuls might be added to each bottle, according to the age of the child and its power of digestion. Lime water was an important addition to the artificial food, and should be used continuously for the first ten or twelve months. In most instances fresh cow's milk would have to be substituted for the condensed milk when the latter disagreed, or this, if obtainable pure, might be used from the first. This should be diluted to suit the age, and there should be added sugar, lime water, and from a teaspoonful to two tablespoonfuls of cream to each bottle, varying the amount to suit the condition of the bowels.

After the third month, or even before, some of the oatmeal gruel, prepared as already directed, might be added. In cities all the water used in preparing the food should have been previously

boiled. Sometimes an irritable state of the bowels, induced by one of many causes, might be benefited by the substitution for a few hours of barley water, arrowroot water, or gum arabic water, and, on resuming the milk food, one of the above mentioned waters might be used as the diluent, instead of plain boiled water. Sometimes the use of peptonized milk, diluted with barley water, or the addition to the milk food of the "peptogenic milk powder" of Fairchild Brothers & Foster, might be required for a shorter or longer period. In the artificial feeding of infants the plain nursing bottle, with a pure rubber nipple, was better than spoon feeding, giving exercise to the masticatory apparatus, and stimulating the salivary function to a more rapid development.

The subject was discussed by the different members, and the experience of each one was that cow's milk, in some form, was the best food for a child who must be artificially fed.

OBSTETRICS.

On the Mode of Conduct in a Case of Retention of the Placenta after Abortion.

P. BUDIN (*Progrès Médical*):

What is to be the conduct of a physician in cases of abortion, when the fœtus has been expelled and the secundines remain in the cavity of the uterus? This question has been a theme for considerable discussion in the last years. Two complications have been observed as arising from the retention of the secundines, they are: *hemorrhage* and *septicæmia*. A certain number of accoucheurs, who look upon these complications as frequent, recommend constant intervention when the adnexa have not followed the expulsion of the fœtus in the course of several hours. The methods of procedure recommended by them are numerous and varied. Some introduce the finger into the uterus and seek to detach, break away or remove the placenta; others resort to the forceps for the better accomplishment of this purpose; others again employ the curette, either dull or sharp. Mundé, for example, uses only the dull curette and also recommends the avoidance of a force which might injure the woman. But the curette with cutting edges also has its partisans, to scrape the walls of the uterus and to withdraw the débris of the ovum. Lately, besides curetting with the sharp or dull instrument, the additional use of a tampon has been resorted to. In a certain number of cases the tampon is sufficient without a previous recourse to the curette.

It is, however, not always easy to operate within an uterus the dimensions of which are so small in the beginning of pregnancy, and whose cervical canal is hardly permeable; it may become necessary to practice dilatation, either with the finger or by means of mechanical dilators, as the sponge, laminaria or tupelo tent. To facilitate this method some physicians seize the neck with a pair of vulsellum forceps and draw it down to the vulva. In short, all means are resorted to, and these means vary according to the nature of the case, and the fancy of the physician, for the purpose of removing the secundines from the uterine cavity.

Is this mode of conduct really rational and necessary? It seems to us that two things must be shown to render it justifiable.

1. That retention of the placenta is really a source of frequent accidents.

2. That all digital and instrumental manipulations to which recourse are had offer no danger.

First.—Is the retention of the placenta following abortion really a source

of frequent accidents? We have collected all the observations made in our service at the Charité from the month of May, 1883, to May, 1886, and in addition to this, with the permission of M. Tarnier, have included all the cases of abortion which have been attended at the Maternité from July, 1883, to July, 1886. The following are the results:

Out of a total of 210 cases (57 at the Charité and 153 at the Maternité), there was 46 times retention of the placenta, giving a proportion of 22 to 100. The after period was habitually uncomplicated after complete abortion, and the morbidity was almost nil; but what were the observations in cases of retained secundines?

At the Charité there was never any hemorrhage when the delivery was slow. At the Maternité only twice was there slight hemorrhage, which came on at the moment of expulsion of the placenta.

Of 24 cases of retention observed at the Maternité, 21 presented no accidents, the puerperal state being normal. Three presented the following particulars: One woman in whom the placenta remained in the uterine cavity showed some signs of infection, which rapidly disappeared after intrauterine injections of Van Swieten's fluid; another case, a victim of criminal abortion, who was admitted to the hospital with an elevated temperature, recovered rapidly; finally in another patient, who had bronchitis and fever before her admission to the hospital, the placenta was expelled entirely in about sixteen hours. The offensive lochia disappeared completely after intrauterine injections, but the fever and all other symptoms which had existed at the beginning, increased, and the patient died from pneumonia fourteen days after the abortion.

To recapitulate, out of 210 cases of abortion there were 46 cases of retention of the placenta. Accidents following this retention have been rare, only one woman died, and it is doubtful if her death could be attributed to septicæmia.

Hence when women are placed in conditions favorable for asepsis, retention of the placenta is not so frequently a source of accidents as has been pretended.

Secondly. Are all the digital and instrumental manipulations resorted to for the extraction of the secundines completely free from danger?

We will only ask those interested in this question to read carefully the observations which have been made up to the present day. They will see that the finger alone is generally insufficient in detaching the placenta and removing it entire. Forceps are managed with difficulty in the interior of the uterus, and often they will leave the remains of the secundines behind them. To the use of the curette, and especially the sharp curette, has been attached the chief blame as founded upon facts. P. Mundé says that they appear powerless in detaching the remains of a placenta situated in one of the horns of the uterus. In spite of a careful scraping of the uterus, portions of the placenta have been left behind in the interior of the uterus, as the observations of Skjelderup and of Doleris have shown. In a case referred to by Moses, in which the uterus had been well scraped, washed and cauterized with perchloride of iron, he was not a little surprised to find next day expelled "a fœtus without legs, 6 to 7 centimeters in length, which in spite of the use of the sharp curette had remained in the uterine cavity without giving rise to any other symptoms." The curette acts blindly. It is also dangerous. In cutting healthy mucous membrane it opens the gates for infection

says J. Viet; a hemorrhage persists which is often very hard to arrest, of which Moses has cited a striking example. Finally, when one is obliged to have recourse to dilatation it is not always free from danger. Schwartz of Halle has reported two cases of considerable laceration of the neck, one extending up to the broad ligament.

Thanks to the use of the antiseptic method, the results have not been so bad as one would believe; however, it may be seen that these (so-called) preventive measures place the woman at the brink of septicæmia and possible hemorrhage, abundant loss of blood being not very rare. In one of the cases reported by Moses cauterization with the perchloride of iron was not sufficient to arrest hemorrhage, as the patient fell into collapse and he had to use the tampon. Not all patients have escaped septicæmia; Moses has noted an endometritis in four cases, and Mundé pelvic cellulitis; Fehling has observed three instances of grave pelvic abscess; Consentino and P. Mundé have observed death supervene in spite of treatment, or it was even due to the treatment itself.

Hence for our part, contrary to the opinion established by certain authors, the retention of the adnexa of the fœtus is only rarely the origin of complications, if recourse be had to antiseptics. On the other hand, of the different methods of intervention which have been counseled and put into practice, some are insufficient, others dangerous. Hence we never deem it necessary to interfere when, the fœtus having been expelled, the placenta remains in the uterine cavity. One may be content with the observance of cleanliness and the use of antiseptic vaginal injections two or three times a day, and the secundines will be expelled spontaneously.

But when complications arise, grave hemorrhages or the phenomena of septicæmia, either because no antiseptic precautions have been taken, or because unsuccessful attempts at extracting the secundines have been made, which often favor the rise of these accidents, what ought then to be done?

Without desiring to enter into the details necessary for each case in particular, we will resume in a few words the proper mode of conduct.

Against severe hemorrhage the tampon is the means par excellence, and the only one which is truly efficient; and when we speak of a tampon we mean one made of cotton or charpie, previously rendered aseptic by being immersed in a solution of carbolic acid, corrosive sublimate, etc.

If the phenomena of septicæmia exist in the beginning, vaginal antiseptic injections should be made every two hours or ever hour. They often suffice and the complications cease entirely. If at the time of the first visit the symptoms of infection are very grave, or if these accidents do not yield readily to vaginal injections, recourse should be had to intra-uterine aseptic injections, employing a solution of corrosive sublimate, 1 to 2000 or 1 to 3000, or carbolic acid, 2 or 3 to 100, etc.

In making these intra-uterine injections care should be taken that no obstacle opposes the flow of the injected fluid; a ready flow can be secured by the use of the horseshoe shaped sound. In this manner the cavity of the uterus is in all probability rendered aseptic, a result rapidly attained, as evident from the cessation of the fetid character of the lochia and the fall of the temperature. General treatment should not be neglected, and we should especially insist on the administration of the sulphate of quinia.—*Obstetric Gazette.*

DISEASES OF WOMEN.

A Plea for Intra-Uterine Medication.

DR. MUNDÉ, after discussing the objections to this treatment, concludes, in an article published in the *New York Medical Journal*, as follows:

To make the introduction of fluids into the uterus more efficient, without at the same time increasing the danger, I have for a number of years employed two methods, neither of which is original with me:

1. The applicator syringe, the fine nozzle of which is wrapped with cotton which is saturated with the medicinal fluid contained in the barrel after the nozzle has been passed into the uterine cavity. If the piston is pushed forward slowly, the cotton becomes gradually saturated and no free fluid escapes into the cavity, while as thorough an effect is achieved as if the fluid had been injected. I have done this many times, but must confess that I have seen several instances of shock and uterine colic after it, even requiring a hypodermic of morphine, the fluid used being, in one instance, nitric acid; in one, solution of nitrate of silver, ʒ j to ℥ j; in one, impure carbolic acid; in two, pure tincture of iodine; and in one. sol. ferri persulph. and glycerin, equal parts. In all these cases the ordinary cotton wrapped applicators had previously been used without reaction. In consequence of these six warnings, I have now reduced the use of the applicator syringe to cases where acquaintance with the tolerance of the uterus renders such treatment reasonably safe, and where the uterine canal is widely patulous. In the latter condition I decidedly prefer, when I wish a very positive effect, the other method, namely—

2. To slip the thoroughly soaked cotton from the applicator and leave it in the uterine cavity for twenty-four or forty-eight hours. The cotton in this way acts as a very efficient tampon and hæmostatic, if required, and the medicinal application is most decided and prolonged. From this method I have seen but good, and no bad, results. Both the uterine and vaginal tampons can be removed by the patient herself, on the next day, by means of strings attached to each. In no case has uterine colic followed this treatment.

In a recent quite original work, entitled "Practical Elements of Gynæcology," by Dr. A. Rheinstaedter, of Cologne, the author, who is not a professor, but merely a general practitioner who, during a twenty-five years' practice, has gradually become a specialist, states that, by the weekly application on a cotton wrapped aluminium applicator of a fifty per cent. solution of chloride of zinc, he has never failed to cure within from two to three months every case of uterine catarrh depending on chronic endometritis, without the use of any other treatment, and that never has contraction of the canal ensued. The applications are always made at the patient's residence, and she is kept in bed until the next day, and, of course, all ordinary reasonable precautions are observed. Only once, in a dispensary patient, who took a two hours' walk home after the treatment, has he witnessed a slight attack of cellulitis.

I do not desire to weary you with an enumeration of the views and peculiar methods of different authors, I merely wish to emphasize the fact that there are various precautions which render the intra-uterine application of certain agents reasonably safe, while not destroying their efficiency. Thus, applications of iodine, carbolic acid, nitric acid, or solution of chloride of zinc, may be made without special risk if the

uterine canal is well dilated, and, in the case of the stronger agents, the patient is kept in bed for one or two days. If these conditions are observed, the cotton wrapped applicator or straight stick, the applicator syringe, or the medicated uterine tampon, may be used with equal impunity. Only I would except the use of nitric acid or chloride of zinc by the latter method, for fear of producing too deep an effect.

While thus admitting the inefficiency of some of the methods of intra-uterine medication and the danger of others, let us see whether the opponents of this treatment have compensatory substitutes to offer. Starting from the idea that a uterine catarrh or hemorrhage is but symptomatic, and depends on some pathological condition of the general system, or of the pelvic organs not inherent to the mucous membrane of the uterus itself, they very properly advise the cure of that condition—the cause of the intra-uterine disease. Such conditions are: a vitiated state of the general health, displacement, subinvolution, or hyperplasia of the uterus, laceration of the cervix, fungous degeneration of the uterine mucous membrane, general pelvic hyperæmia, etc. Undoubtedly, the proper plan of treatment in such cases is to remove the cause of the endometritis, build up the general health, overcome constipation by exercise, diet, and proper laxatives, rectify the displacement, stimulate the uterus to involution and absorption of its adventitious elements, sew up the laceration, scrape off the vegetations, etc. But, granted that all this has been done and the catarrh is cured in the cases in which it is really caused by the conditions mentioned, I maintain that there still remain numerous cases of chronic endometritis —due to cold, to exposure during menstruation, to sexual abuse, to venereal infection, to subinvolution chiefly after abortion, to the extension upward of a cervical catarrh, etc.—in which the removal of the original exciting cause fails to cure the disease; and, further, I fail to see how we can benefit or cure the numerous cases of chronic subinvolution and hyperplasia which resist every general and local remedy, unless we resort to methodical and prolonged intra-uterine medication.

Dr. Thomas here remarks that, if the removal of the causes mentioned fails to effect improvement, the application of the dull wire curette over the whole surface will produce "an altered state in the entire endometrial membrane, break distended blood vessels and often accomplish a great deal for the relief of the disease."

Fritsch does not approve of this treatment, for he says most pointedly: "In cases of simple supersecretion the therapeutic measures mentioned" (applications of tincture of iodine after removing the mucus) "achieve much better results than the recently recommended heroic plan of deep cauterization and curetting of the uterus. The uterus should not be considered a fistulous track, slow to heal, and covered with fine granulations. A partial destruction of the diseased mucosa merely has the therapeutic value of a local depletion of blood. If the action of the mucous membrane is to be altered, or its secretion modified, it is useless to scrape away particles of it. It is much more important to remove the secretion, and then to paint the whole endometrium with an alterative agent." I do not agree with Fritsch in these remarks, for I firmly believe that the curette often does what Dr. Thomas alleges for it, and I have many times employed it for this purpose when I failed to find vegetations. But, if the repeated application

of the curette does not cure the endometritis, what then? Or if, after removal of vegetations, the menorrhagia still continues, or if there were no vegetations to account for the profuse menstruation which still persists? That such cases are not uncommon will be admitted. And my object is precisely to insist upon the necessity of continuing intra-uterine medication, with proper precautions, in the cases where the very proper and rational removal of the presumable causes of the uterine disease has failed to achieve a cure. From my experience I should recommend intra-uterine medication in the following conditions:

1. *Chronic Endometritis in Nullipara.*—I have grown to believe this so much of a local disease that I do not believe it curable by other than topical applications. Of course, I except the existence of one of the causes already mentioned. The most intractable cases have been those of virgins, and young, obese women, in whom I have found the severe applications—such as solution of chloride of zinc, ʒ j to ʒ ij to ℥ j; or of nitrate of silver, same strength—the most efficient. Nitric acid I have never employed above the os internum in a nullipara, and chromic acid I believe equally unsafe, although I think the latter remedy most excellent in chronic cervical catarrh. I recollect one case of a young married lady, sterile after four years of married life, in whom I could find no cause for the sterility but a chronic endometritis; after three applications of impure carbolic acid by the cotton-wrapped probe, I went into the country on my vacation. On my return, two months later, she told me that she had missed a period, and pregnancy was soon ascertained to have taken place, which went to a normal conclusion. I think the cleansing of the uterine canal of mucus and pus had more to do with the conception in this case than the mild cauterization.

2. *Villous Endometritis, to Effect a Permanent Cure after Removal of the Vegetations by the Curette.*—After scraping out the uterus for menorrhagia caused by villous degeneration, I invariably plug the uterus at once with cotton soaked in pure tincture of iodine or in iodized phenol, and continue the applications of tincture of iodine, generally with the applicator, twice weekly for several months, then once a week, once in two weeks, and, finally, only once a month a few days before a period, until the menstrual flow is and remains perfectly normal in amount. I know that I have thus secured a permanent cure, which I feel sure I should have failed to do in many of the cases if I had omitted this after-treatment. I have thus cured patients who had been curetted by other gynæcologists at home and abroad, without any or sufficient after treatment, and had consequently continued to flow until systematic prolonged intra-uterine medication was resorted to.

3. *Chronic Subinvolution and Hyperplasia of the Uterus.*—I know that the prolonged use of ergot and hot douches will often result in restoring a subinvoluted uterus in the earlier stages of the disease to its normal condition, especially if the faradaic or the interrupted galvanic current is also used. But I have never been able to convince myself that a uterus in a state of chronic subinvolution or of actual hyperplasia was much benefited by any measures, local or general, not applied directly to its interior. I certainly have seen more benefit follow frequent and prolonged intra-uterine applications of tincture of iodine and iodized phenol than any other measure. And in these cases the use of the ordinary cotton wrapped

applicator has answered as well as other methods, the mere irritation of the passage of the applicator seeming to play some part in stimulating the organ.

4. *Menorrhagia from a Flabby or Subinvoluted Uterus.*—In many such cases, after the usual local and general hæmostatics failed, I have succeeded in checking the hemorrhage, when its persistence had become alarming, by plugging the uterine cavity with cotton saturated with compound tincture of iodine, or with sol. ferri persulph. and glycerin, equal parts. In one case of hemorrhage after suspected early miscarriage, where the patient could scarcely have borne a repetition of the flow, I was obliged thus to plug the uterus daily for over a week before it contracted permanently.

I am aware that this example does not exactly belong under the head of "routine" applications, but I think it worth while to refer to it.

In conclusion, I must again offer as an excuse for this communication, which may appear entirely uncalled for to those practitioners who believe in and habitually use intra-uterine medication, my apprehension lest by the force of distinguished teaching we go from one extreme to the other, and, from undoubtedly exaggerating the value of intra-uterine medication, abandon it entirely. I am sure it has its decided value, and, *in well selected cases*, and with reasonable precautions, will prove both efficient and safe. I trust that this paper may elicit the views of the members of the profession, both as to the value of the treatment in general, and as to the respective worth and safety of the various agents, in order that we may see whether any decided changes of opinion have recently taken place. My own purpose has been merely to lead up to the subject, not in any way to exhaust either its past or present history or its future possibilities.

Some Observations on the Uterine Sound, with especial reference to its use in Gynecological Therapeutics.

Dr. W. W. Potter, in a paper read before American Medical Association :

It was but a few years ago when a Ferguson's speculum, caustic-holder, uterine dressing-forceps, and Simpson's sound, were an ample outfit for the practice of gynecology. The sound has been used in almost every malady peculiar to the pelvic organs, and I am sure it is in the range of truth to assert that this instrument has done woman more harm than any other used in the management of her diseases. The young physician is prone to its improper use, and, sad to say, causes often irreparable damage to the genital tract or health of woman. Nor is this animadversion applicable exclusively and alone to the professional novitiate, for many whose experience should have taught them better, are guilty of the same. I myself are not holier than thou, but take a full share of blame for past misuse. My experience has taught me in every instance in those cases which seem to invite its use for diagnostic purposes, most earnestly to use it with the utmost caution, circumspection and gentleness. I would most strenuously insist that this instrument should be applied to only as a *dernier resort*, and in juncture with extreme doubt. Have we not repeatedly seen endometrium so sensitive as to spring into violent inflammation as a result of contact with the sound? Metritis, both peri- and para-salpingitis, ovaritis, pelvic cellulitis, *et id omne*, are among the results. What, pray, may all these lead to? Were it possible to group together in one table where woman has been caused to abort by the use of the sound, what would be the

array? Those indescribable symptoms, remote and reflex in character, also sympathetic, which we call neuroses—hystero-neuroses if you please, that are difficult to locate, but unbearable—neuralgias, headaches, backaches, etc., count up a picture of woe pitiable to think about. Mr. Lawson Tait has found that in his own practice, as experience increases, his use of the speculum and sound grows less and less. This comes from the increased *tactus eruditus*. He says, educate the finger-tips. This were well, but few of us can reach the perfection of a Tait. However, the nearer we can come to attaining this, the better gynecologists we are and the less will we use the sound. The essayist said that the os uteri should always be patulous, and the endometrium free from disease before the sound is used.

When necessary, the delicate virgin-silver probe of Sims is better and safer than the Simpson sound. This should never be passed at the first interview. We should, if possible, avoid it until we are quite familiar with the topography and peculiarities of the sexual tract of our patient. We should wrap absorbent cotton about the instrument to serve as a cushion for the metal. He could not speak in too strong terms against the use of the sound to replace the retropoised uterus. He named this use of the instrument as barbarous practice, and recommended the intelligent and persistent use of manipulation and the genu-pectoral position. The sound has taught us some good things, chief among them being the better use of our fingers. —*St. Louis Med. and Surg. Journal.*

A Case of Hernia of the Bladder through the Vulva, with Strangulation.

The patient was a woman with deformed pelvis, who, after severe labor, had an enormous vesico vaginal fistula. She had consented to an operation for the obliteration of the vulvar orifice, but left the hospital before this could be done. The following year she returned in a very bad state. On examination, a tumor of the size of an orange, of a violet color, was seen protruding between the labia, and this turned out to be the bladder gripped at the entrance to the vagina. Any manipulation of the tumor was attended with great pain and considerable hemorrhage. The obliteration of the vaginal aperture was again suggested, and this time was agreed to and performed under an anæsthetic. The labia minora and the internal surface of the labia majora were cauterized by meaus of the thermo-cautery, in order to secure large granulating surfaces. These were approximated by means of sutures carried right through, and the labia of the opposite sides were brought securely into contact. Obliteration of the vulvar orifice was thus obtained, a small orifice being left below the meatus urinarius. After the operation no urine escaped while the woman was recumbent, and only to a small extent when erect. It was proposed to fit on a sort of receptacle, but she left before this had been prepared. Some months later, she returned once more as bad as ever. The vesical hernia and strangulation had recurred; and although the vulvar orifice was smaller than in the first instance, the effect of the former operation had been almost entirely destroyed, the husband and the surgeon having apparently worked at cross purposes. Dr. Polaillon considers the case of interest on account of its rarity.—*Archives de Tocologie.—Md. Medical Journal.*

Reflex Gastric Neuroses Due to Uterine Diseases.

G. BRAUN, in *Wien. Medicin. Woch.*, emphasizes the intimate sympathetic

connection existing between the stomach, in particular, and diseases of the female genital organs. Reflex neuroses, indeed, have their outcome from the sexual system, have been time and again noted by specialists in the various branches of medicine. From the side of the uterus it is well known that the various displacements and distortions have a reflex influence on the nervous system. The same holds true of peri-uterine exudations and lacerations of the cervix. The necessity of careful examination of every organ of the body before making a diagnosis as to the special cause of neurotic symptoms can not be too strongly impressed on the general practitioner as well as on the specialist. Braun reportes a number of interesting cases in his paper which prove conclusively the dependence of functional gastric derangement on disease of the uterus. In the first case the patient had been treated for a number of months by various gentlemen for chronic gastric catarrh without avail. Finally she consulted Braun, who found simply an abnormal mobility of the uterus. For the relief of this he inserted a Braun-Hodge pessary and the neurotic symptoms disappeared. In a second case, almost continuous vomiting had existed for nearly two years, and the patient had been subjected to varied medication without relief. On examination, Braun found a lacerated cervix, repaired the rent, and cured the patient of her neurosis. In a third case, vomiting was a symptom which had lasted for a number of months, whenever the patient assumed the erect position. The uterus was found heavy, subinvoluted, and sagging downward. Pessaries, rest in bed, the hot douche, were tried without much benefit, when finally Braun amputated the vaginal portion of the cervix. As the result of the operation, the depth of the uterus decreased from five to four inches, and on being discharged the neurosis had disappeared.

These cases are very significant, although, doubtless, the majority of the practitioners have met with the like. We believe we are right in the statement that the connection between uterus and stomach, as an explanation for neuroses, is generally overlooked. In this journal for November, 1884, a striking case of reflex spinal neurosis will be found reported by Mundé. The patient had been bed ridden for about five years on account of paralysis of the lower limbs. She was about twenty-five years of age, and eminent specialists in neurology had exhausted their efforts for her relief. Although there was no special indication of organic disease of the uterus or appendages, and the diagnosis of chronic myelitis in the lumbar region of the cord had been made, the patient insisted so strongly on oöphorectomy as a last resort, that Mundé performed it, with the result of restoring the patient to health and usefulness. We recall this case here, because it strikingly indicates what form neuroses may assume, and what unexpected results a forlorn hope may sometimes yield.—*American Journal of Obstetrics.*

Treatment of Metrorrhagia.

DOLERIS commends the following method of treatment in metrorrhagia.

Commence with friction, morning and evening, over the lumbar region with spirits of camphor, 120 grams; ether, 30 grams; chloroform, 15 grams. Internally, tincture cinnamon, 15 grams. Daily, and *per vaginam*, the following application: Glycerine, 350 grams; acid tannic, 30 grams; tincture iodine, 4 grams.

Also general hydrotherapy, *not* used about the pelvis; douche in intermittent jets, fifteen seconds in duration. The vaginal application may be modified as follows: Glycerine, 350 grams; laudanum (Sydenham's), 4 grms; ext. of belladonna, 2 grams. Not to be used when ulceration of the cervix exists.

Counter-irritants over the spine in the lumbar region, the cold douche; and, should the indication arise, curetting the uterus or sponging its interior.

In the case of exudates and uterine fibromas, digitalis may be used as follows: Glycerine, 120 grams; extract of digitalis, 4 grams; alcohol to dissolve, q. s. Dissolve the extract in alcohol and shake with the glycerine. Not to be used if ulcerated cervix be present.

Also, glyceride of starch, 120 grams; extract of digitalis,4 grams; alcohol, q. s. —*Gaz. de Gynecologie.—Medical News.*

New Operation for Prolapsus Uteri.

A Mexican medical journal gives an account of an operation practiced by Dr. Malanco for the purpose of forming a kind of false uterine ligament in cases of prolapsus. In consists in passing the trocar from the anterior vaginal fornix to the abdominal wall (taking care, of course, to avoid the bladder), and in applying the actual cautery to the track by means of a thermo-cautery inserted through the canula from the front. The proceeding, which was first proposed by Dr. Fenelon, of Mexico, is stated to have been employed several times with the most successful results. —*Md. Med. Jour.*

Intra-Uterine and Vaginal Irritation.

Dr. Thos. Lothrop concludes an article in the *Buffalo Medical Journal*, as follows:

While septic infection offers the most general and frequent indication for the use of uterine irrigation, there are other conditions following parturition in which it is specially called for. The use of hot water in hemorrhage is a recognized procedure in surgery, and the accoucheur has been ready to borrow, from a co-ordinate department of medical science, one of the most efficient means for arresting post partem hemorrhage. The fact that hot water is always at hand, and its reliability as a hæmastatic generally known to the profession, calls for its use in cases of uterine inertia or the hemorrhagic diathesis, in which severe flowing follows the expulsion of the fetus, as the most efficient means for its arrest. The irrigation of the uterus with water of a temperature of 110° to 115°, will be followed often by contraction of the organ, and the arrest of the hemorrhage, and the rescue of the patient from death.

The use of hot water in softening the rigid os and cervix uteri, in labors in which the necessity is urgent for prompt delivery, on account of eclampsia, etc., is a well recognized and efficient method of treatmant. In cases where other means fail, the irrigation of the cervix with water of a temperature of 110°, continued for one or even two hours, until the rigidity is overcome, is attended with such happy results, that it is commended earnestly to your attention. A case is recalled of a patient at full term with uræmic convulsions, in whom dilatation was quickly accomplished by vaginal irrigation, after chloroform, morphia and atropia had failed, and a forceps delivery of a dead baby resulted. The utility of this measure is beyond question.

It is, however, in septic infection that vaginal and intra-uterine irrigation find their greatest and most frequent use. Here the results from their judicious employment are marvelous. It is not

too much to assert that thousands of women have been saved to enjoy the blessings and joys of maternity, for which they had suffered during a long pregnancy and a painful parturition.

The symptoms indicating the use of irrigation are mainly the presence of a chill succeeded by fever, following within twenty-four or forty-eight hours, or even later, after delivery; and an interesting question here presents itself—what temperature shall determine the accoucheur to order the intra-uterine irrigation? If following a chill, the temperature rises to 101° or 102°, and the pulse corresponds in frequency, and the medical attendant is convinced that septicæmia is the cause of the pyrexia, the thorough washing out of the uterine cavity is indicated. It may be inquired here—how frequently is it safe to repeat the irrigation? and in reply, let me say, that the rise of the temperature, after the first irrigation, is an omen that calls for the repetition of the washing. Some doctors are so enthusiastic as to recommend the constant irrigation of the uterine cavity in severe cases. This can be justified only in desperate cases. In the majority of patients, the intra-uterine washing can be repeated every four hours, and more often two or three times per day will be ample to control the pyrexia. Often the wire curette will successfully supplement the irrigation, by removing decomposed organic matter, which the water fails to dislodge.

A simple tube of hard gutta percha and a fountain syringe are all that is necessary to carry out the treatment. The Chamberlain tube of glass has long since been discarded in my practice, and an inexpensive hard rubber tube is used, which is thrown away at the completion of each case, in order to be sure that the disease may not be communicated to other patients. Certain precautions are necessary to be observed in the use of the tube. The introduction should be with care and gentleness; and before the water is allowed to pass into the uterine cavity, the air should be carefully expelled from the tube.

It may be asked in this connection—is there danger in the use of this method of treatment? and I answer, that fatal results have in rare cases attended its use. Besides, secondary uterine hemorrhage has followed the irrigation, the thrombus formed at the mouths of the uterine sinuses having become detached. There is also danger of forcing the antiseptic lotion into the circulation, by introducing the distal end of the tube into the mouth of a uterine sinus. The injection of the fluid into the peritoneal cavity through the fallopian tube, has been regarded as a danger. But these accidents, while they should be recognized, should not deter the accoucheur from the only method now known to reach the source of the septic material, and to remove it from the uterus.

In this connection, the germicide to be employed is a matter of importance. Let me give the proportions of some of the more efficient remedies:

1 to 4,000 of Biniodid. Hydrarg. requires 3 21-25 grains of Biniodid., Potass. Iodid. 2½ gr., water 1 quart.

1 to 8,000 of Biniodid. Hydrarg. requires 1 23-25 grains Biniodid., Potass. Iodid. gr. j, water 1 quart.

1 to 15,000 of Biniodid. Hydrarg. requires 1 6-2500 grains Biniodid., Potass. Iodid. gr. ¾, water 1 quart.

1 to 2,000 Bichl. Hydrarg. requires 7.7 grain Bichl. in one quart of water.

The use of the iodoform suppository, following the intra-uterine irrigation, efficiently supplements the treatment. Dr. Garriques recommends a suppository, composed of one hundred grains of iodoform, and finds valuable results

to follow its use. Let me here suggest that a smaller quantity, a scruple for instance, be used at first. The comparative value of the mercuric preparations need not be considered in this connection. The bichloride is more irritating and less expensive. The biniodide is safer, more powerful, but more expensive. We have been accustomed to use the bichloride, and have referred to the use of the biniodides from the experience of others.

The use of carbolic acid as an antiseptic for our instruments is valuable. Boro-glyceride, boracic acid, salicylic acid, potass. permanganate, and other germicides, have been brought to the notice of the profession, but the mercuric preparations have been so satisfactory and efficient, that we regard the other germicides as auxiliary agencies to be used in case there should be any idiosyncrasy on the part of the patient, contra-indicating the mercuric salts.

It may be asked in this connection, if there is danger of the constitutional effects of mercury in the free local use of its compounds, as we have advised. The writer has witnessed one case only of ptyalism from the use of the mercuric chloride. In the many cases in which he has used these germicides, no unpleasant results have been experienced, except the one mentioned. It is well to be watchful for the constitutional effects of these powerful agents, but the danger is limited.

A simple precaution should be observed in the use of the intra-uterine douche. The cervix and os should be sufficiently dilated to permit the egress of the fluid, and if contraction of the uterine canal has gone so far that the tube cannot be easily introduced, the uterine dilator should precede the tube, so that ease of introduction and free egress may be maintained.

Medicated Vaginal Tampons.

Dr. Fancourt Barnes, at the British Gynecological Society, showed some medicated vaginal tampons. The tampons are composed of absorbent cotton wool and elastic fibre enveloped in sublimated gauze. In the centre of the wool is a small hermetically closed glass capsule, containing a drug in a concentrated form. Before applying the tampon to the vagina, the capsule is broken by pressing the tampon between the finger and thumb, and thus liberating the contents, which are diffused through the tampon. In this way iodoform, cocaine, eucalyptol, or any other drug, may be preserved intact and ready for use when required.—*Weekly Medical Record.*

Treatment of Ovarian Pain by Electricity.

M. Apostoli (*Rev. de Thérap*) makes use of a faradic stream of high tension, applied to the uterus, either by the means of a double uterine electrode, or of an electrode pushed into the vagina, the other being placed on the hypogastrium. The stream must never be powerful enough to excite pain ; the sittings must generally be repeated daily, and last about ten minutes.—*Ib.*

On the Immediate Treatment of Laceration of the Perinæum.

Dr. F. E. Beckwith (*N. Y. Medical Journal*):

The consequences of laceration of the perinæum are subinvolution of the vagina, followed by prolapsus vaginæ, and sometimes by cystocele or proctocele; and prolapsus uteri secondary to these.

In cases in which the sphincter ani is torn through, in addition to the foregoing, prolapsus recti and incontinence of fæces and intestinal gas, and sometimes chronic inflammation of the rectum.

Until recently patients failed to complain of beginning proctocele and cystocele, or prolapsus uteri, in conformity with the false tradition universally prevalent among physicians as well as midwives that these ills were the natural results of child-bearing.

This error has been perpetuated by surgical indifference and a desire to escape unfavorable criticism. Fortunately, women have learned that this accident is both frequent and unavoidable, that it causes much suffering, and that it is easily and safely remedied by surgical means.

It is almost impossible to understand how a general practitioner can fail to become familiar with the anatomy and functions of the perinæum, and the results of its rupture when of considerable extent.

It is impossible to understand how, having gained such knowledge, he can doubt the advisability of an immediate operation for its repair.

Although this subject has been hammered into foil by numberless writers, there are still to be met with practitioners who never see a case of rupture; others who do see it, but so rarely that they doubt their senses when they do; and others who regard the perinæum as no more consequence than the hymen, and its absence after the first delivery as quite normal.

Extent of Laceration requiring Operation.—If the tear extends only to the centre of the perinæum, it is unnecessary to close it by suture, although it is good practice to do so. All tears beyond this point to the sphincter ani should be immediately closed, except when, as is rarely the case, the edges of the tear are in a bruised and œdematous condition. Such ruptures are called partial, in distinction from complete, in which the sphincter ani is torn through, and in which immediate closure is unadvisable.

The question naturally arises, Why, in the latter class of injuries, is an immediate operation unadvisable? The answer lies in the fact that the operation for complete rupture, properly performed, is both difficult and tedious, and frequently fails in skillful hands, while that for partial rupture is easy and almost certain to succeed.

After the lapse of twenty-four hours an operation should not be done, but should be postponed until two months after delivery, when involution of both vagina and uterus is complete, at which time only is the operation for complete rupture certain to succeed.

When the patient shrinks, as is natural, from an immediate operation, its advisability at the close of the puerperal period should be insisted upon.

An immediate operation sometimes fails from weariness, haste, or nervousness on the part of the attendant, with lack of surgical experience; from injurious effect of the urine and lochial discharge upon the wound; from the use of sutures in a superficial way, bringing together the margins only of the skin, and leaving a deep pocket behind, in which the discharges collect.

Such an operation restores the surface only of the perineal body.

By means of *serre-fines* this thin veil can be created, but no more. A few practitioners, satisfied with this filmy result, continue to resort to their use.

Some operators use silk, others catgut or silk-worm gut, but, upon trial, all have been found inferior to silver wire of good size, either No. 27, or No. 26.

I cannot add anything to what Thomas has written upon this subject in chapters ix. and xi. of his work upon "Diseases of Women." Who would "add another hue unto the rainbow?"

"Its rupture furnishes one of the most fruitful sources for the absorption of septic elements, and I do not hesitate to say that thousands of women suffer throughout their lives from uterine displacements, engorgements, and vesical and rectal prolapse in consequence of injuries inflicted upon it during the parturient act. To an imperfect comprehension of the anatomy and functions of the perinæum I attribute, in great degree, the impression entertained by many practitioners that, in spite of all that is said, its rupture, so long as it does not involve the anal sphincter, is a matter of little moment.

"This dangerous dogma—which, in my mind, renders him who entertains it an unfit person to be intrusted with the grave responsibilities of the lying-in chamber—is always based upon the fact that such a practitioner has seen many perinæums ruptured during labor, and even without interference on his part has, to use the common phrase, 'heard nothing of them afterward.'" (Thomas, chap. ix., p. 165.)

To justify the statements made in this paper, I should present some original evidence tending to prove—

1. That laceration of the perinæum is a frequent accident of parturition.

2. That it is not always spontaneously repaired.

3. That by immediate operation a good result is usually obtained, and almost always a better one than without operation.

I therefore offer a brief summary of the records of 200 cases of labor in primiparæ in which delivery was natural, and which were observed with the object of throwing light upon the subject before us, the immediate treatment of the ruptured perinæum:

Whole number of cases observed, 200; number in which laceration occurred, 124 (62 per cent.); number in which laceration occurred to the sphincter ani, 50 (25 per cent.); number in which no laceration occurred, 76 (38 per cent.); number of cases in which examination and record were made one month after delivery, 102; number in which such examination could not be made, and therefore excluded, 22; (*a*) number of lacerations left to nature, 73; (*b*) number operated upon, 29; (*c*) number of lacerations to sphincter ani left to nature, 21; (*d*) number of lacerations sphincter ani operated upon, 20.

a. Results in 73 cases left to nature (all degrees of laceration):

In 5, 1 inch or more united, classed very good (6.8 per cent.); in 25, from ½ inch to 1 inch, including ½ inch, classed good (34.1 per cent.); in 18, less than ½ inch united, classed bad (24.6 per cent.) in 25 no union took place, classed failure (34.5 per cent.).

b. Results in 29 cases of lacerations operated upon (immediately) all degrees of lacerations:

In 11, 1 inch or more united, classed very good (37.9 per cent.); in 12, from ½ inch to 1 inch, including ½ inch, good (41.3 per cent.); in 6, less than ½ inch united, classed bad (20 per cent.); in 0 no union took place, classed failure (0 per cent.).

c. Results in 21 lacerations to sphincter ani left to nature:

In 2, 1 inch or more united, classed as very good (9.5 per cent.); in 10, from ½ inch to 1 inch united, not including union of ½ inch only, classed good (48.3 per cent.); in 6, ½ inch or less united, classed bad (28.5 per cent.); in 3 no union took place, classed failure (14.2 per cent.).

d. Results in 20 lacerations to sphincter ani operated upon (immediately):

In 11, 1 inch or more united, classed

very good (55 per cent.); in 8, from ½ inch to 1 inch united, not including union of ½ inch only, classed good (40 per cent.); in 1, ½ inch united, classed bad (5 per cent.); in 0 no union took place, classed failure (0 per cent.).

I believe these statistics tend to establish the truth of the three propositions above made, namely—

1. That laceration of the perinæum is a frequent accident of parturition.

2. That it is not always spontaneously repaired.

3. That by immediate operation a good result is usually obtained, and almost always a better one than without operation.

It is interesting to note that among the 76 cases in which no rupture occurred there were 27 perinæa classed as elastic, and therefore not liable to rupture; and among the 124 in which rupture took place there were 6 classed as friable, and therefore certain to rupture.

The existence of such conditions should be borne in mind when the value of measures to prevent rupture is to be determined.

DISEASES OF CHILDREN.

True Croup.

Dr. David Phillips concludes an article in *New York Medical Journal*, as follows :

When a false membrane forms on a mucous membrane, it is rarely, if ever, organized, as it is not permitted to remain in contact long enough for vitalization, a secretion occurring beneath it, which will raise and detach it if the patient lives long enough.

In croup two conditions present themselves for treatment : 1. The thickened and enfiltrated condition of the laryngeal mucous membrane, with the accompanying sub-mucous œdema. 2. The presence of false membrane. Now we have a medicine—calomel—which is a most efficient agent for removing the first condition, while, should the second be present, it diminishes its cohesive attachment to the mucous membrane, and renders the lymph less fibrinous and more readily absorbed. Besides this local action of calomel on the larynx, it seems, by its peculiar effects on the intestinal tract as a whole, to produce an alterative action which tends to stop inflammation, reminding one in this respect, of the action of large doses of iron when given in erysipelas. It also lessens the plasticity of the blood, and thus tends to prevent exudation. Calomel thus meets all the indications for the treatment of croup.

One thing more remains to be mentioned—namely, the danger of suffocation. This may take place before the calomel has had an opportunity to produce results, as some time elapses before the remedy can exert its full effects in the vicinity of the vocal cords, there being few, if any, glands in this location. We have, fortunately, in the O'Dwyer tube a most efficient instrument, which will keep the larynx open, and thus give time for the production of the effects of calomel referred to. It should be remembered, however, that the O'Dwyer tube is only a temporary expedient, an exudation into the bronchi not being prevented by its use ; consequently, notwithstanding the use of the tube, the calomel should be administered until its characteristic passages are produced. It should then be discontinued, as its further administration seems to be harmful.

As the O'Dwyer tube produces ulceration, if nothing worse, it should not be left in position longer than thirty-six hours. While it is in position, the patients should take liquid food in small

quantities until they become accustomed to swallowing, and a very good method is to drop the liquids into the mouth by means of a medicine dropper. After its removal, it may, should it become necessary, be inserted again.

The following system of treating croup and diphtheritic laryngitis has yielded me the most gratifying results ; but, to obtain them, scrupulous attention must be given to every detail: I commence by administering an emetic, using ipecac in the croup cases, and sulphate of copper in the diphtheritic. As soon as the emetic has produced its effect, I give the patient one grain of calomel every hour, persisting in this until the characteristic stools appear, no matter how alarming the symptoms of the disease may become. At the same time I envelop the patient's throat in a flax seed poultice covered with flannel, and over this oil-silk. Renew these poultices every half hour. The poultice should extend from the upper border of the sternum to behind the ears. I also order the patient to inhale steam every hour or two for a quarter of an hour at a time, in addition to which I have placed in the room an open vessel half filled with water, to which turpentine is added ; this I keep boiling by means of an alcohol lamp, or some other suitable apparatus, about a tablespoonful of turpentine being consumed every hour. This vapor producer should be kept in action night and day.

From half a teaspoonful to two teaspoonfuls of whiskey (according to the patient's age), in a tablespoonful of milk, should be given every hour.

If symptoms of continued dyspnœa appear, the O'Dwyer tube should be introduced at once. The early introduction of the tube in cases calling for it probably prevents lung complications.

As soon as the characteristic calomel stools occur, the calomel should be discontinued, and a mixture of chlorate of potassium and iron be given. Ten to twenty drops of the tincture of iron and from one to two grains of the chlorate of potassium, according to the patient's age, should be given every hour. Continue the whiskey all through the treatment. After twenty-four hours reduce the dose of the potash one-half, continuing the reduced dose for another twenty-four hours, after which stop its administration. As regards the iron, it should be given at greater intervals as the condition of the patient improves. Digitalis is exhibited whenever necessary.

Under this treatment the temperature has been found to fall within twenty-four hours, and septic symptoms have never appeared during the course of the disease.

In conclusion let me ask those of you who have witnessed the struggles and agonies of children suffering from this terrible disease to adopt this treatment. I have the fullest confidence, based upon repeated experience, that it will not be found wanting in the hour of need.

Whooping Cough Treated by Nasal Insufflations.

Dr. T. Guerder made the following communication at a recent meeting of the Society of Practical Medicine. In the beginning of last February an epidemic of a severe form of whooping cough broke out at Pontcarré ; infants were especially attacked. At first the disease was treated by fumigations of carbolic acid in the patients' rooms, and the administration of belladonna, carbolic acid and bromide of potassium, with syrup of poppies. The fits of coughing became less frequent, and the reflex excitability was favorably modified ; but when the treatment was suspended the cough assumed its original

violence. On account of the extreme susceptibility of many of the children to belladonna poisoning, it was frequently necessary to discontinue the use of the syrup. In the case of a boy, aged 4 years, two teaspoonfuls daily caused the pupils to dilate, and delirium ensued. Whooping cough requires protracted treatment, and it was not advisable to administer narcotics to young children for several weeks, even when they could be tolerated. The presence of nasal catarrh, with congestion of the pituitary mucous membrane, and the probable parasitic nature of the complaint, suggested to Dr. Guerder the advisability of local treatment similar to that which had been successful in hay fever. The probability that fits of whooping cough might be attributed to a nasal reflex action determined fits of coughing or attacks of asthma. Nasal insufflations were practised with a very fine powder composed of boric acid and dried coffee in equal parts. The insufflations were effected by means of a form of nasal insufflator which scattered the powder whilst projecting it into the nostrils, and thus prevented any accumulation on a limited area of the mucous membrane. This detail was important, inasmuch as when the treatment was first adopted it was unsuccessful, because the mothers did not understand how to effect the insufflation; but there was a marked improvement when it was performed night and morning by a physician. Thirty children were treated in this way; seven of them were scarcely a year old, seven were from one to two years old, six from two to three, and ten from three to eight. Among these thirty children, thirteen had been treated for a week or a fortnight with the syrup above mentioned, and a very decided improvement was noticed, but only of short duration. The remaining seventeen were exclusively treated with nasal insufflations, not taking any other medicine, excepting one or two emetics during the catarrhal period. Out of the thirteen children treated with the syrup during the first period, from February 5 to February 10, three had attacks of intercurrent pneumonia; two children of 7 and 11 months succumbed, the other, 8 years old, recovered. It should be noted that, during the attack of pneumonia, the fits of coughing entirely subsided, but returned with the same violence during convalescence. From the day when nasal insufflations were employed, no further complications ensued, nor did any more deaths occur.

Narceine for Whooping Cough.

A writer in the *Tribune Médicale* says, that there is one remedy which can be relied upon to assuage the paroxysms of whooping cough, and that is narceine administered in pills of 1-6 grain, or what is better for young infants, according to the following formula: ℞. Narceine, grn. 1; simple syrup, ℥ 4; acetic acid, enough to dissolve; mix. The dose for very young children is from one to two teaspoonfuls, and for older ones in proportion. As much as one-third of a grain of narceine may be administered to a very young infant in the course of twenty-four hours without danger. The editor of the *Tribune* says that the attacks of cough coming on at night are almost certainly avoided by use of this remedy.

As narceine is but sparingly soluble in acetic acid, it seems to me that the amount of that acid required to make a solution of the drug is far in excess of what should be given to an infant. The hydrochlorate of narceine, on the contrary, is extremely soluble, and hence a much better formula than the above is :

℞. Narceine, grs ij; simple syr. ℥ iv; acid hydrochl. q. s. u. fiat sol. M. Dose for young infants one teaspoonful.

OBSTETRICS.

The Latency of Grave Symptoms in the Puerperal State.

Dr. W. O. Priestly, in a paper on the occasional latency and insidiousness of grave symptoms in connection with the puerperal state (*British Medical Journal*), concludes that,

1. In many cases going wrong it has been observed that the uterus was inordinately large, thus indicating a dilated cavity, in which clots or fluids, which ought to be discharged, are retained, and which may thus become the nidus for the possible development of diseased germs. Further, in an imperfectly contracted uterus the sinuses or large veins remain full of clot, or of fluid blood, which is more or less apart from the general systemic circulation, and is thus, like the back water of a stream, stagnant and ready to become a source of peril. Clots should, therefore, always be carefully removed from the uterus, as they form for some time after delivery, and pressure with other means should be conjoined to promote full contraction.

2. The occurrence of a rigor at any part of the puerperal period should never be disregarded. It is nearly always the forerunner of some less or greater commotion in the system, although the mischief it portends may not be observed until the suspicion excited by its advent has well nigh died out.

3. The presence of rheumatic or obscure pains in the joints or muscles, even if they be flitting or transient, should be taken as indicating a possible contamination of the blood current, and the case should be watched the more closely, if the patient be depressed in spirits, or if she be prone to be apparently hysterical. If with these symptoms there be no evidences of deviation in any special organ, the heart should especially be watched, with the view of ascertaining if there be any indications of deposits in the valves. The sudden appearance of a bruit with the heart sounds may be the precursor of embolism either in the pulmonary or in the general systemic circulation. The temperature should also be carefully recorded, as it is probable that in all cases of insidious puerperal disease, the thermometer will indicate some rise of temperature.

4. It should be remembered that patients who are inert in temperament, and who lead inactive lives during pregnancy, are more prone to puerperal ailments than others of more active disposition, and thus require more careful supervision.

5. The treatment of suspected cases should consist of putting the patient in the best possible hygienic conditions, improving vitality by the administration of quinine and a good judicious diet.

6. As it is possible that all germs of disease are imported from without, and that those of a less virulent character only find an opportunity of developing themselves in the bodies of women whose vitality is below the normal standard, it may be possible in many cases to prevent disease altogether by improving the health of the patient, and by the proper use of antiseptic precautions both during and after delivery. —*Peoria Medical Monthly.*

Palpation of the Shoulder as a Means of Diagnosticating the Position of the Head.

Dr. Riviere (*Nouv. Arc. de Gynec. et d'Obstétrique*) concludes an interesting paper on this subject with the following deductions: 1. We cannot have too many aids for determining the exact position

in head presentations. 2. Although the frontal protuberance may often be felt, it is sometimes out of reach. 3. If the shoulder can be palpated, in addition to the latter the diagnosis becomes easy and certain. 4. The shoulder when felt gives sufficient evidence regarding the position. 5. The shoulder always occupies the same half of the pelvis as the occiput, lying on the left in first position, on the right in second. 6. When the head is engaged the shoulder is immediately above the superior strait, lying on the left side in first positions, on the right in second, while the frontal eminence is opposite to it. When the head is movable at the brim, the frontal bone cannot be felt, and then the position of the shoulder furnishes valuable information. 7. In many cases palpation of the shoulder alone enables the accoucheur to determine the exact position of the fetus. If the occiput is anterior, the shoulder forms a broad, but not prominent, projection in the median line; in the posterior variety it is felt as a smaller but longer projection, situated from two and a half to three inches to one side of the median line.—*N. Y. Medical Journal.*

[The wonder is that so obvious and so valuable an aid in the abdominal examination, had not been thought of before. We have verified the claims of Dr. Rivière, and have found the situation of the shoulder a more useful sign for determining the position in some cases than even the dorsal plane or the cephalic prominence, especially in differentiating between anterior and posterior positions of the occiput.] J.

Accouchement During Hypnotic Sleep.

In the *Wiener Med. Wochenschrift*, a case is mentioned of a woman whom Dr. C. Braun succeeded in rendering unconscious during labor by throwing her into a condition of hypnotic sleep; the uterine contractions were particularly painful. They were equally violent during the period of unconsciousness, but the intervals were somewhat longer; dilatation of the passages took place in a most satisfactory manner, and delivery was speedily accomplished. The placenta was expelled into the vagina, and was easily withdrawn with the hand. On awakening, the patient did not complain of pain, and afterwards slept natural for several hours. One of the most interesting features of the case was that the uterine contractions induced contraction of the abdominal muscles without awakening the patient. Hemorrhage slight.—*Brit. Med. Jour.*—*Jour. American Med. Assoc.*

Poisoning from a Vaginal Injection of Sublimate.

A perfectly healthy primipara, aged seventeen, exhibited no symptoms of kidney disease, or of any other complication of pregnancy. To disinfect the vagina before labor, two douches of 1 to 2,000 solution of sublimate were given, one before and one after examination by a midwife. It was noticed that a small amount of bloody mucus was expelled from the vagina after the douches. In a few hours abdominal pain, diarrhea and a rise of temperature occurred, all the symptoms and lesions of mercurial poisoning developed, nephritis, salivation, and continued diarrhea, and, after giving birth to a living child, the patient died in coma on the ninth day after the douches were given. The pathological anatomical diagnosis made at the autopsy, was "corrosive sublimate intoxication, acute nephritis, dysentery, stomatitis, and pharyngitis in the stage of ulceration, parenchymatous degeneration of heart and liver, lobar and lobular pneumonia bilateral, acute cystitis."—*Therapeutic Gazette.*

DISEASES OF WOMEN.

A New Form of Vaginal Speculum.

DR. H. W. MITCHELL, in the *New York Medical Record:*

In all operations upon the cervix uteri and the vaginal canal, every surgeon has experienced more or less difficulty in bringing the parts into view perfectly, and retaining them in view during an operation, owing to the defective forms of the different speculums now in use. When the operation requires the patient to be placed in Sims' position, namely, upon the left side, with the knees drawn up, and the chest carried forward, and a Sims speculum used, the perineum can be drawn backward well enough, but the upper labium and the upper border of the vaginal opening are apt to fall downward and impede the operator's view, as well as to embarrass his manipulations. The elasticity of the parts also causes the lower border of the vaginal opening to partially close upward, and thus to still further obstruct his view. Besides this, the parts are liable to be touched with the instruments, unless great care is exercised to avoid it. Another difficulty is the holding of the speculum by the assistant.

In holding Sims' speculum in proper position so that the cervix or a fistula can be conveniently operated upon, the assistant must hook the free blade around the back part of his wrist, and retain it in this awkward and painful position during the whole time of the operation, which may be a half-hour, or even much longer. Every assistant who has held a speculum in this way knows how difficult it is, and how often he has embarrassed the operator by letting the speculum slip, because his fatigued and half-paralyzed wrist has been unable to hold it firmly while the operation lasted. These difficulties are plain to every surgeon, and the writer, who has had considerable experience in these operations, set about devising some way to overcome them.

The accompanying engraving shows a speculum which I think meets all the requirements of the situation. It is a modification of the principle of the Sims' speculum. It has one blade, as the cut shows, which is *short* and *wide*, with two broad and spreading wings or flanges of such a shape, and bent at such a curve, as to keep the vaginal opening completely expanded when the instrument is in position. The upper wing is much larger and broader than the lower to prevent the gravitation of the parts downward. The lower wing is broad and flat, and so curved on its edge as to be entirely out of the way of the operator. A large nicely shaped handle, easy to grasp, replaces the other blade of Sims' speculum. This handle (the cut shows the shape perfectly) is fitted with a transverse metallic bar, curved in such a way as to allow the first two fingers of the assistant to be hooked over it. By aid of this device the instrument can be held firmly in position during

the most tedious operations without fatigue to the assistant and to the great comfort of the operator.

Mr. W. F. Ford has kindly made this instrument for me, and is ready to furnish it in larger sizes, if wanted.

This new speculum has worked admirably in my hands, and I offer it to the profession, hoping they will find it equally convenient.

Laceration of the Cervix Uteri.

Dr. H. B. Ritter (*Medical Herald*):

Torn cervices are now sown up by the hundreds regardless of variety, extent or complications. The fact that there is a tear is sufficient excuse for the operation. This feeling does away with discrimination and would make it necessary to operate on nearly every multipara in the land. If we look at the termination of those lacerations that were let alone, which were never treated at all, we find that a great many have healed or cicatrized and left no disagreeable symptoms behind. And all kinds of lacerations have terminated in this way, but especially unilateral, antero-posterior, and slight bilateral. But even extensive bilateral lacerations with the lips eroded and everted so that they are almost at right angles with the rest of the uterus instead of on a line with it, generally terminate just as favorably by giving a little assistance.

In the latter class of cases one is almost forced, from the appearance of the parts, to suggest the operation as the only possible way of effecting a cure, and yet it is in exceptional cases of this kind only that local treatment fails. The surfaces may be only cicatrized over, or the sides may be partly grown together and the remainder of the surfaces cicatrized, but all the symptoms disappear and the patient continues well. We do not claim that in every instance a permanent cure or soundness of the surfaces will be attained; you may possibly get a faulty cicatrix, or on account of a displacement of the uterus or other diseased condition a granulated surface may again be formed. But the operation is not any more certain to give complete relief, it promises much that it does not perform, and there is often disappointment among the patients if not among the operators.

Objection is often made to healing by cicatrization on the grounds that pelvic pains and other reflex symptoms may occur on account of the pressure of the cicatricial tissue on the nerves. It is even claimed that this pressure interferes with the various functions of the body, and is in this way a cause of malnutrition. In regard to the latter we have grave doubts, and neuroses as reflex symptoms of cicatricial tissue we are satisfied are very rare. That reflex irritations may occur cannot be denied, as they have been traced directly to the cicatrix both in the cervix and elsewhere. The character of the cicatrix depends on the character of the granulations that form it, and the granulations are governed by the degree of separation and irritation of the labia, the constitution of the patient, and the influences brought to bear on them in the treatment. When the granulations are kept under proper control by keeping the labia together, and removing irritation by building up the constitution, and cutting them down when exuberant, a thin, smooth and healthy cicatrix is obtained, but if not cared for the granulations are generally excessive and a thick cicatrix results, which may be even and sparingly supplied with blood vessels, or it may be nodulated and vascular, so that its surface seems ready to break at any time.

Faulty cicatrices are, however, so uncommon that it may be laid down as a rule that unless the lips are granular or it is an everted laceration, the patient is not troubled and no treatment is required.

A granulating surface will always demand some attention, no matter what kind of a laceration, and the greater the separation of the labia the more urgent the demand. When the eversion is slight the granular surfaces often heal without any treatment, and there is no telling how many lacerations of this kind get well without ever being seen. When there is much eversion nature alone is generally unable to cope with it, and hyperplasia, endometritis, and other complications will be found. The divergence of the torn surfaces in pure, uncomplicated cases is due to the elasticity of the tissues, and while it increases with the extent of the tear, it is always slight. If, however, the uterus sinks in the pelvis or falls backward or forward, the traction made by the vaginal walls and uterine ligaments increase the separation and may even bring the raw services in contact with the vaginal walls. The hyperæmia and the friction on the torn surfaces prevent healing, and the case goes from bad to worse. Elevate the uterus in such a case to relieve the traction on the cervix and the torn surfaces will be brought together, there will be less irritation of the whole mucous membrane of the uterus, but especially of the torn surfaces, and hyperæmia will be diminished. Complications are prevented, or, if already present, are ameliorated and placed under control, while the laceration can be considered a simple one, and will improve almost as well as if there had been no eversion. All admit that antero-posterior lacerations usually heal well. Why do they heal better than bilateral lacerations? The same structure is involved, the extent of the tear may be the same, same cause, same everything, except that the surfaces are not so widely separated, and in this will be found the explanation.

The ligaments of the uterus and the vaginal walls are so situated that there is less traction to the sides than anteriorly and posteriorly. To put a lateral laceration in as favorable a position as an antero-posterior brings the lips nearer together. This is the first point to make to be successful in the local treatment of lacerations. Elevate the uterus and, if necessary, push it forward or backward, and keep it in position with a pessary or vaginal trmpon. It is astonishing how much eversion can be overcome in this way. Next get the torn surfaces in a healthy condition. If granulations are excessive, or hyperplastic glands are found, these must be removed by caustic, scissors or curette. To keep the surfaces healthy apply iodine twice a week, and direct vaginal injections of hot water to be used twice a day. To increase the local effect of the injection add alum or some other astringent. If at any time there is a tendency to excessive granulations, apply nitrate of silver or nitric acid, to be followed by iodine or a weak solution of nitrate of silver. This is usually termed the palliative treatment, but with the proper use of the pessary or vaginal tampon, is certainly curative treatment.

Vaginal Pressure in the Treatment of Chronic Pelvic Disease.

Dr. A. Reeves Jackson (*New York Medical Journal*):

My attention was first called to this subject by reading a paper which was published by Dr. V. H. Taliaferro, of Atlanta, Ga., in 1878, on "The Application of Pressure in Diseases of the

Uterus," in which the writer presented many facts and arguments to prove the great therapeutic efficacy of the principle of pressure as applied to the treatment of diseases of the uterus and other pelvic organs, which are characterized by habitual passive congestion and its results, namely, uterine displacements, enlargement, relaxation, cervical erosions, menstrual disorders, etc. The method consisted in firmly packing the vagina with sheep's wool made antiseptic with carbolic acid, with the aid of a Sims' speculum, the patient being in the knee-chest posture. At first Dr. Taliaferro used cotton pledgets, saturated with glycerine, but observing that the cotton packed quite hard, he very soon substituted wool because of its resiliency, a quality which it was found to retain under pressure and moisture.

[In illustration of the results of this method of treatment, Dr. Jackson detailed a number of instructive cases in which it had been used by him. In one of these, the patient was suffering from supra vaginal elongation of the uterine cervix, complicated with complete cystocele and vaginal eversion, the involuted parts protruding from the vulva and forming a tumor of considerable size. The uterine canal measured six inches. The parts were restored and the vagina packed with cotton, a process which was repeated every two or three days for a fortnight, at the end of which time the depth of the uterus was reduced to three inches. Other symptoms were correspondingly improved. The patient who had been only able to drag herself along with pain and difficulty, could, after the first packing, move with rapidity and comfort. She was subsequently cured by a plastic operation on the vagina. Other cases, some of them furnishing results almost equally striking, were detailed by the writer.]

Dr. Taliaferro strongly emphasized the importance of applying the tampon with the patient in the Sims' position, in order that the vaginal canal should be distended and elongated to its utmost capacity. He further advised that the first few pieces composing the tampon should be of cotton, for the reason that a greater amount of glycerine may be incorporated with that substance than with wool. It was claimed that the therapeutic effects of this treatment are as follows .

1. It diminishes blood supply and nutrition.
2. It promotes absorption.
3. It removes hyperplastic tissue by retrograde metamorphosis.
4. It diminishes nervous action.
5. It rectifies malpositions.

I was much impressed by the stated results of the treatment, and determined to give it a trial. It seemed to promise a valuable substitute in some of the objectionable and uncertain methods of local treatment then and now in vogue, such as cauterization, local blood-letting, tents, intra-uterine medication, iodine painting, hot douches, etc. Since then I have used it in many cases of chronic pelvic disease, and am able to corroborate the favorable statements that have been made concerning its efficacy.

Dr. P. Mundé, who gives an abstract of Dr. Taliaferro's paper in his "Minor Surgical Gynæcology," edition of 1885, says: "Of the value of this steady and elastic pressure and support in reducing the size of an engorged hyperplastic or (better still) subinvoluted uterus, and restoring the normal circulation to the œdematous and congested pelvic cellular tissue, I have no doubt whatever; neither of the potent alterative effect of this pressure on old peritonitic or cellulitic exudations and adhesions."

I had not applied this dressing many

times before I observed occasionally on removing the tampon, that on various parts of the vaginal wall, and also around the os uteri, erosions appeared sometimes bleeding slightly on exposure. I attributed this to the fact that the packing had either been too firmly or unequally placed. In cases of moderate laceration of the cervix uteri, this accident is especially likely to occur if the packing is so applied about the vaginal portion in such a manner as to widely open the os uteri. Hence, in all such cases I endeavor to at first push the uterus upward with a single pledget, and then to pack the entire vaginal fornix about it so as to press the cervical labia together as much as possible.

When any part of the mucous membrane appears soft and succulent, I have found advantage in combining with the glycerine a solution of tannin or alum. The contact of glycerine is not equally well borne by all vaginas, and in a few cases I have not been able to persist in its use on account of the irritation it caused. In these cases I find an excellent substitute in vaseline, which, although it does not produce the peculiar serous drain which comes with the use of glycerine, is unirritating, and makes possible the employment of the pressure, which is the more important element in the treatment.

When I first began to use this pressure treatment I chose carded wool, in accordance with the suggestion of Dr. Taliaferro. But it was difficult to obtain a well prepared article, and next to impossible to incorporate any considerable quantity of glycerine with it. I was obliged to use cotton for the upper part of the vagina. I next tried successively oakum and jute. These substances were elastic—especially the former—and also antiseptic; the former containing tar, and the latter carbolic acid. However, since sheep's wool has been so prepared as to be free from fatty matter, and is comparatively absorbent of water and glycerine, it more completely and perfectly meets the indications than any of the other substances I have named.

As regards the form of the tampon, I have used it both in single and multiple pieces, and unhesitatingly give preference to the latter in many cases. It is very important that the vagina be packed in such a way as to insure an equable pressure against every part. This cannot be so certainly done with a tampon made from a single piece, or a few large ones as with a number of smaller sizes. When moistened the pieces should not exceed a walnut in size. Time may be saved, however, and the object accomplished, by using a single piece of wool for the lower half of the vagina.

Commonly, the only medication I have used with the tampon besides the glycerine or vaseline, has been the occasional addition of tannin or alum. But when for any reason, I have wished to have the dressing remain longer than two days, I have, after saturating the separate pledgets, rolled them in boracic acid so as to take up two or three drams of the latter.

The cases in which I have found this method of treatment especially beneficial are those which are characterized by soft engorgement—such as the earliest stages of subinvolution, with or without cervical laceration. In these cases I have seen more marked change effected in two weeks than is commonly seen in two months—or more than is seen at all sometimes—under the use of hot water douches, however perfectly and assiduously the latter may be used.

Permit a slight digression. Without wishing to disparage in the least the use of hot water irrigations, in the treat-

ment of chronic pelvic inflammations, I desire to say that for some years I have held the opinion that their efficacy great as it is, has been overrated. Indeed, they have been so eulogized that perhaps we have expected more from them than was reasonable. One serious drawback to their usefulness arises from the fact, that the sittings cannot be continued usually for a sufficiently long time. If it were practicable to keep a stream of hot water playing against an inflamed or engorged tissue for thirty hours rather than thirty minutes, we should doubtless obtain more prompt and more permanent results. But as the hot water douche is usually employed, its effects in constricting the over-full vessels are of short duration. I have seen a turgid, purplish cervix subjected to a hot stream for forty minutes; at the end of the time it was pale and shrunken; at the end of another hour, the patient continuing meanwhile on her back, I have found the same cervix as turgid and as purple as before.

Now, just on this account, a manifest and very great advantage may be urged in favor of a means of treatment which, equally with the hot water douche, has power to unload the vessels of their stagnant contents, and which may be continued day after day and week after week, without remission and without reaction. Such a means is to be found in persistent pelvic pressure and tissue drainage.—*New York Medical Journal.*

Uterine Tents and Their Effectual Disinfection.

DR. DIRNER, of Buda-Pesth, has recently written in the *Centralblatt für Gynäkologie* on the effectual disinfection of tents used for gynecological purposes. He observes how, after the greatest precautions, serious pelvic inflammation may follow the introduction of sponge or laminaria tents. This accident is clearly due not to the mere ulceration of the dilated structures, but to the introduction of septic material through the wounded mucous surface. The preparation of tents by soaking or coating in antiseptic media is insufficient. Septic matter may be introduced with the aseptic tent; surgeons handle and throw about samples at the shops, nor is the process of manufacture always properly superintended. Fritch's method of coating tents with wax requires warm water to be at hand when the wax has to be melted, and that water may be septic. Dr. Dirner has detected cracks in the wax, allowing the admission of dust. The most carefully prepared dry tents can convey septic germs on their surfaces. For a year Dr. Dirner has employed in Professor Tauffer's wards a special system of disinfecting laminaria tents. He immerses them in a 1 per cent. solution of corrosive sublimate in absolute alcohol contained in a wide mouthed bottle. When required a tent is taken straight out of the solution and passed into the canal of the cervix, the patient being previously placed in the semi-prone position, and the vagina disinfected. He takes care to inspect hollow stems before introduction, and should any crystals or sublimate be detected in the channel of a stem, it is dissolved with pure water. The results of this practice have been admirable, and he has seen no bad effects follow the introduction of the disinfected tents; provided that absolute alcohol be employed, the expansive power of the laminaria is in no way damaged.

Case of Parovarian Cyst that Developed Extra-Peritoneally.

DR. GERSTER exhibited a specimen, and related the following facts concerning the case: The patient from whom it

had been removed was a young married woman of twenty-one, who became pregnant about four months after marriage, and had an abortion. Examination at that time revealed a sessile tumor occupying the right iliac fossa. The patient was seen by a gynæcologist, who advised waiting until a pedicle should form. The speaker examined the lady in March, and found that the cyst in question was about the size of a child's head and filled the right iliac fossa ; it was immovable, and seemed to be generally adherent. On the 6th of April he performed excision of the tumor. On dividing the tissues in the median line down to the usual situation of the peritonæum, that membrane could not be found, but the cyst was exposed and tapped, a clear, yellowish fluid being withdrawn. The sac was then enucleated with the fingers, closer adhesions being successively ligated and divided, until the pedicle was reached deep within the pelvis, near the right cornu of the normal uterus. The cyst was of the parovarian variety, and had grown outward between the layers of the broad ligament until it reached the parietal peritonæum, which it had dissected up from the iliac fossa, following the course of an extra-peritoneal abscess. A piece of peritonæum about one-third of a square foot in area was exposed. Two drainage tubes were introduced, and the wound was closed with plate-sutures. On the day following the operation the patient, who had reacted well, suddenly developed tympanites, while her pulse became very rapid and her respiration rose to forty; in fact, she appeared to be in a condition of shock similar to that observed after severe blows upon the abdomen. The tympanites was spontaneously relieved on the fourth day, her pulse improved under stimulation by enemata of brandy and hot water, and she subsequently made a good recovery, her temperature falling from 101.7° to normal. Bloody urine and some uterine flow were observed for a few days. The patient was out of bed on the thirteenth day. The interesting feature in the case was the sudden development on the second day of symptoms of shock, although there certainly could not have been what is commonly called shock at such a late period ; neither could peritonitis have appeared and disappeared so rapidly. There was no evidence of septic trouble, no vomiting or abdominal tenderness, but the main disturbance seemed to be in the circulation. The speaker suggested as a probable explanation the occurrence of a localized coagulation necrosis in the widely detached peritonæum, leading to hyperæmia of the contiguous serous covering of the intestine, which resulted in paralysis of the gut with consequent tympanites. There might have been an attempt at the formation of adhesions, because when the patient's bowels were moved on the fifth day by a saline cathartic she said that "something seemed to give way."

Dr. Sands asked if the symptoms might not have been due in part to the pressure of the bandage, which became tightened in consequence of the tympanites.

Dr. Gerster said that the dressings were quite loose, and that moreover there was no change after they had been removed.

Dr. Weir asked if all the sutures held.

Dr. Gerster replied in the affirmative. Four of them were removed on the fifth day, together with the drainage tubes.

Dr. Weir thought that some of the sutures might have given way. He had noticed that silver-wire sutures occa-

sionally gave way soon after the operation, perhaps in consequence of change in the metal.

Dr. Briddon could not believe that necrosis of the peritonæum could have occurred and have been so quickly arrested.

Dr. Gerster explained that the existence of this condition seemed quite probable in view of the fact that such a large piece of peritonæum had been detached. Dead tissue within the abdominal cavity might be absorbed, provided it remained aseptic, as was frequently noticed after the removal of pieces of omentum. The nerves of the peritonæum, which were closely related to those of the solar plexus, might be so affected by these aseptic necrotic changes that serious symptoms might be produced. In reply to a question by Dr. Briddon, the speaker said that this nerve-irritation would have accounted for the symptoms presented in the case under discussion.

Dr. Stimson could hardly see how such a transient necrotic process could exist.

Dr. Briddon thought that the fluid removed from the cyst presented an appearance different from that observed in parovarian cysts.—*N. Y. Med. Jour.*

Emmett's New Operation for Prolapse of the Posterior Vaginal Wall.

Dr. J. W. Boldy, in an article published in the Philadelphia *Medical Register*, says in conclusion :

The old operations, devised on the supposition that the injury of the perineal body was the cause of all the symptoms, included far more labial tissue than had been involved in the tear, and were entirely inefficient for restoring the pelvic floor. They caused an unnecessary barrier to coition, and frequently left the patient with a certainty of return of all her ailments, and a probability of the tear being reproduced at a subsequent labor.

The only satisfactory surgical procedure suggested as a cure of the injury, is that of Dr. Emmet, for restoration of the pelvic diaphragm. The patient is placed in the dorsal position, and the labia separated by assistants ; hook a tenaculum or a ligature (which remains a permanent landmark to the end of the operation) into the crest of the rectocele and draw it upwards, without undue traction, to the meatus, and place it in the hand of an assistant. Hook another tenaculum into the labial tissue on each side, directly opposite to or in the lower caruncle or remains of the hymen. If slight traction in diverging directions be made in all the tenacula at the same time, three triangles are formed, having the crest of the rectocele for their common apex. The base of the first is a line drawn from caruncle to caruncle, and the bases of the others a line drawn from each caruncle to a point far up the sulcus of the same side. On denuding these surfaces and bringing the three tenacula together, the vaginal canal will be found reduced in size, the perineum will have been apparently drawn up toward the arch of the pubes, and the tissues of the previously gaping outlet will have been rolled in until the vaginal entrance is no longer larger than that of any female who has not given birth to a child at full term. The posterior wall is brought firmly up against the anterior wall and bladder, giving them their natural and necessary support, and preventing their rolling down and out. Care must be taken not to denude too much surface in the sulci, as failure may result, the sutures cutting out from undue traction. The scissors should be used for all plastic work in the vagina. Any one becoming accus-

tomed to their use will never go back to the knife. The bleeding is infinitely less and much time is saved by the celerity with which they can be handled.

The most essential part of the operation is the introduction of the sutures. They are passed from the apex of each sulcus toward the operator. A tenaculum is hooked into the apex of one of the sulci and drawn away toward the cervix uteri, thus preserving the line on which the sutures are to be introduced. The sutures are then all passed toward the operator to the bottom and median line of the sulcus, plenty of tissue being included; the sutures emerge at the median line of the sulcus and are reintroduced in the same spots and carried away from the operator, emerging just beyond the freshened edge of the rectocele directly opposite the original point of introduciion on the other side of the sulcus, thus taking a V-shaped course. The number of sutures is usually four or more. The other side is sutured in the same manner. When these sutures are all drawn up into place and closed, there remains a small triangular space of freshened surface in front of the rectocele, which is closed by the so-called crown stitch, and one or two superficial external stitches. The crown stitch is introduced through labial tissue at the lower caruncle, the original point of introduction of one of the tenacula carried across through the crest of the rectocele and then through labial tissue at the lower caruncle on the opposite side. All the other sutures are now lost to view within the vagina. The resulting shallow line directly in the median line of the perineum, is closed by one or more superficial external stitches. They are passed deep enough to include a portion of the posterior vaginal wall.

The day for plunging a great perineal needle through glutoid tissues, skin, muscles, fasciæ, nerves and blood vessels, is past. It is as much a relic of barbarism as searing the stump of an amputation to stop hemorrhage, and causes much pain and suffering. The material of the suture is immaterial. Cat-gut can be either shotted or tied. As moisture causes the gut to swell, it should be shotted as soon as passed and fastened to the pubic hair with a pair of hæmostatic forceps. This will keep them out of the way of the operator. Dr. Emmet always uses silver wire twisted and then shotted so as to be easily found; the end is bent over and lies flat on the tissues. Silkworm gut should always be shotted. It makes an excellent suture, and forms a good splint to the tissues. Whatever is used, the stitches are equally hard to find and remove. A very easy method for either wire or gut, is the use of "Aveling's wire coil." These can be made by wrapping a piece of silver several turns around a straight needle or other staff, to form a close coil about half an inch in length. This coil is slipped over the two ends of the suture and secured in its proper place by a compressed shot. In removing, snip off the shot, remove the coil, and the suture has ends as long as the coil was.

The patient complains of no pain, and opium and alcohol are not needed. The bowels are kept soluble from the first; and the urine is passed every four or five hours, the patient getting on her hands and knees if necessary. There is no neçessity for binding the knees together, nor for keeping the woman in one position for days. The stitches may be taken out on the eighth day.

Painful Menstruation.

Dr. A. A. Nefe, (*Medical and Surgical Reporter*):

Having found the following formula a good one in cases of amenorrhœa and

dysmenorrhœa, I send it for publication, thinking perhaps some one of your readers might be seeking for something of the kind. It is not a specific, but the nearest approach to it of anything I have ever found for the above named difficulties. For a four-ounce mixture : ℞. Fl. ext. cimicifuga, ℥ ss; fl. ext. pulsatilla, ʒ ss–j. M. Flavor to disguise the taste. Sig.—One teaspoonful every one or two hours to six doses, unless flow is sooner established.

To disguise the taste, I ordinarily add the following: ℞. Fl. ext. yerba santa, ʒ j; syrup. simp., ad., ℥ iv.

I find the receipt of most use in women of a nervous temperament. Of course, if there is any self-evident cause for the menstrual trouble, that should be removed; but we often find the trouble existing in young girls to whom the flow is imperfectly established, and who will not consent to an examination.

Incontinence of the Urine in the Female.

After an operation for stone, consisting in crushing the stone after sufficient dilatation of the urethra in a woman, large pieces of the stone were pulled out through the urethra by Dr. F. WINKAL (*Centrlb. f. d. Med. Wiss*). The consequence was incontinence of urine, but on inquiry W. found that the patient had previously been suffering at certain times from the same complaint. He then made a series of operations, with the result of achieving a cure. First, W. excised a piece 1 ctm. wide and 8 ctm. long out of the anterior vaginal wall. Immediately after an improvement set in, which was, however, but temporary. Next W. executed resection of the anterior portion of the urethral wall. This was followed for two years by a cessation of all incontinence. Then the symptoms returned, and an examination showed that the urethral orifice was too much dilated. To remedy this defect, W. cut out a wedge-shaped piece, and then sewed the parts together. This operation, too, brought about improvement, but no cure. Renewed examinations demonstrated the presence of a thin part of the urethra near the neck of the bladder. W. resected this portion by removing the vaginal wall and the muscularis of the bladder without injuring the vesical mucous membrane. This fourth operation at last established a permanent cure.—*Ibid*.

DISEASES OF CHILDREN.

Acute Bronchitis in Children.

A very timely and practical article on this subject is from the pen of Dr. S. HENRY DESSAU, of New York, in the *College and Clinical Record*, for April. The author regards cold bathing as the best prophylactic of the affection, recommending at first sponging with cold water from the head to the shoulders and spinal column, to be followed later, as tolerence is established, by douches. With this we agree but in part. The cold douching of the infant is unnatural and injurious. We have too often seen the attempt to toughen the child in this manner followed by the very difficulties it was intended to obviate. Judicious sponging is, however, to be commended. This, together with the necessary "air bath" during the process, will be found all that the delicate nervous organization of the infant can tolerate to good purpose. A proper regulation of the temperature of the living room is another important prophylactic, on which Dr. Dessau dwells. Unquestionably, the difference between the temperature of these rooms and that of outdoors is a very fruitful cause of bronchitis. The general enervating effect of prolonged heat, to say nothing

of its effects on the integument, peculiarly predisposes the infant to inflammation of the mucous membrane as a direct result of sudden exposure to a lower temperature. The temperature of the apartment should never exceed 70°, and the respired air should not be vitiated with the products which load it in the absence of proper ventilation. While we would scarcely go to the length of classing acute bronchitis as a filth disease, the arguments which could be advanced in favor of such a proposition could be made very cogent; as cleanliness of the body and of the respired air are among the most reliable prophylactics.

Dr. Dessau's therapeutics of the affection will commend themselves to all who have had experience. When the inflammation is confined to the large tubes, when there is little or no rise of temperature, he gives to a child six months of age, one-fourth to one-half drop doses of wine of antimony in combination with one-half to one drop doses of wine of ipecac every hour. Golden sulphuret of antimony, gr. 1-20, rubbed up with sugar of milk, and repeated hourly is also satisfactory. A stimulating embrocation, as of equal parts of oil of turpentine and olive oil, is a valuable adjuvant. In our practice we have found a solution of one grain of tartar emetic in a pint of water, and given *ad libitum*, excellent in these cases. This solution is tasteless and is particularly grateful when there is any fever, as there generally is even in the mildest cases.

In severe cases of bronchitis accompanied with an elevation of temperature, and where the medium sized and smaller tubes are involved, Dr. D. is in the habit of giving tincture of aconite root in doses of one-half to one drop, according to age, repeated every hour, with the result of reducing the temperature, and establishing resolution. If a spasmodic element of the cough is manifested to any extent, much benefit may be derived from the tincture of belladonna in drop doses, given alternately every hour with the aconite. It will be remembered that in the early stage of inflammation of mucous membrane the secretion is at first diminished, the membrane becoming dry and swollen. Afterward, the secretion is increased in quantity, while at the same time it becomes altered in quality, being viscid and tenacious. Hence in the early stage of an acute bronchitis, where dry, subcrepitant or sonorosibilant râles are heard, the practice which is often followed, of giving stimulating expectorants, such as the carbonate and muriate of ammonia and squills in free doses, can only result in aggravating the existing condition.

Much more successful results will be obtained by giving such remedies as will relieve congestion and swelling of the mucous membrane, through acting upon the force of pressure of the blood circulation,or by derivative action upon distant organs whose functions are in a measure compensatory in character. Such is the effect of aconite and veratrum viride. Nitrous ether, which is a depressor of arterial tension, as the other nitrites are known to be, which thus explains its diuretic effect, is a time honored remedy in bronchitis, and may be cited as representing the latter class. Spirits of Mindererus, from its sudorific action upon the skin, is always indicated. A favorite combination of the author's which has seldom failed to render him valuable service is: Liq. ammon. acet., f ʒ iv; spts. ether. nit., syr. ipecac., āā f ʒ iss; syr. senegæ. f ʒ j; syr. limonis, f ʒ j. M. ʒ j every three hours.

Hot poultices of flaxseed, sprinkled on the surface with mustard, made large enough to encircle the entire chest and covered with oil-silk, form an important addition to the treatment of the severe grades of bronchitis. Pieces of tape extending across the shoulders should be tacked to the cloth holding the poultice, in front and behind, to prevent the poultice from slipping down. The effect of the heat and moisture, together with the counter-irritation produced by the mustard, which can be regulated in amount to suit the demands of the case, are unquestionably of the highest benefit. Where the bronchitis has extended to the infundibula and air vesicles, and catarrhal pneumonia has developed, the doctor has every reason to believe that a continuous mild counter-irritation, with the flaxseed poultice lightly sprinkled with mustard, has often been the principal means of enabling him to witness the successful termination of his cases. The poultice should be changed about three times during the day and once through the night. spongio-piline, wrung out with hot water, answers every purpose of the poultice, besides being cleaner and less troublesome to apply; but, being expensive it can be afforded only by wealthy families. West recommends the spongio-piline to be sprinkled with a stimulating liniment, such as lin. camph. co., ℥ j; tr. canth., tr. opii, āā ʒ ij. M., when it is desired to produce counter-irritation.

When the râles have become soft and bubbling, and not disposed to clear up quickly, three to five drops of a saturated solution of muriate ammonia, given every two hours, have the happiest effect in clearing up the excessive secretion, notwithstanding in some cases evident signs of catarrhal pneumonia were present. It is important, especially in subjects of a scrofulous and rachitic diathesis, to establish a healthy condition of the mucous membrane of the bronchial tubes as soon as possible. In these cases, there is a general tendency for some large ronchi to remain scattered over the lungs after the more severe symptoms have disappeared. The administration of tonics, as quinine and iodide of iron, together with cod-liver oil, is here clearly indicated. Counter-irritation to the back, in the interscapular space, with tincture of iodine should be used, as it is also rightly regarded as a valuable means of promoting absorption of the enlarged bronchial glands.

Dr. Dessau fails to mention two remedies of vital importance in the treatment of cases in which the capillaries have become clogged with the products of inflammation, and in which suffocation seems imminent, the prolabia becoming cyanosed. Ordinarily the prognosis, when this condition supervenes, is very grave; in our experience, however, it is by no means absolutely hopeless, the remedies against it being assafœtida and the cold bath. Assafœtida is an excellent stimulant of respiration, and the method of employing cold water advocated by Dr. H. C. Wood, of Philadelphia, in these extreme cases is a means of expelling the accumulated mucus, the equal of which has not yet been advanced. This method which we had occasion to resort to, a few days ago, in the case of an infant three months of age, is to quickly transfer the child from a warm bath to one of ice-water. The retention in the cold must, of course, be but momentary, the object being merely to cause the shock. The remedy may seem very heroic, and it may require no little courage on the part of the practitioner to suggest it, but in cases in which the infant is

struggling for breath, the contraction of the respiratory muscles which it causes will be followed by results which will remove all doubts as to the expediency of the procedure.

The Treatment of Painless Enlargements of the Liver in Childhood.

DR. LOUIS STARR (*Coll. and Clin. Record*):

In the matter of treatment it is hardly necessary for me to say that attention must first be given to the amelioration or removal of the cause. It is more difficult to cure the disease when once developed than to prevent it by checking chronic suppuration, removing carious bone, healing diseased joints, energetically treating constitutional syphilis, and building up the health in cachectic subjects.

To combat the disease itself, the diet must be as nutritious as possible, taking care that the powers of digestion be not overtaxed, and a moderate quantity of alcoholic stimulants must be taken daily.

The child must be clothed so as to prevent all chilling, and must live as much as possible in the sunlight and open air, or, if confined to the house, in a bright, airy room. Alkalies, iron, and iodine are the most useful drugs. Of alkalies, the chloride of ammonium is the best, and it may be given in combination with a bitter. The following prescription answers very well in these cases. ℞. Ammonii chloridi, ʒ ij; infus. gentianæ comp., f ℥ iij. M. Sig.—One teaspoonful four times daily; for a child six years old.

It is often well to combine iron with the ammonium salt; for example:—℞. Tinct. ferri chloridi, f ʒ j; ammonii chloridi, ʒ ij; infus. calumbæ, q. s. ad f ℥ iij. M. Sig.—One teaspoonful three times daily.

The iron may also be given in the form of a modified Basham's mixture:—℞. Tinct. ferri chloridi, f ʒ j; acidi acetici dil., f ʒ iss; liq. ammonii acetatis, f ʒ v; elix. aurantii, f ʒ v; syrupi, f ℥ j; aquæ, q.s. ad f ℥ vi. M. Sig.—One tablespoonful four times a day.

When there is kidney complication with œdema this formula is particularly useful.

Iodine is most efficient if there be a syphilitic taint. It may be given in the form of iodide of potassium, five grains or more three times a day, with a bitter infusion, or liquor iodinii comp. can be employed in doses of two drops, well diluted, three times a day.

The complications must be met as they arise; vomiting, by ice, Apollinaris water, bismuth, and counter-irritation of the epigastrium; diarrhea, by the vegetable astringents, combined with small doses of opium; and dropsy, by diaphoretics and diuretics.

OBSTETRICS.

Artificial Abortion by Evidement.

In the *St. Petersburg Medical Wochenschrift*, WEIDEMANN, of St. Petersburg, calls attention to a plan for rapidly emptying the pregnant womb, that in the two cases in which he has used it has proved eminently safe, prompt and in every way satisfactory. A case of incessant vomiting of pregnancy, in which he had had great trouble in inducing abortion once before, caused him to study anew the various means for producing abortion and to try to find a safer and prompter method than the ones usually employed. The case was as follows: A woman, æt. 26, applied to his clinic for relief from incessant vomiting. She had given birth to five children, without any complications except

some moderate vomiting during her pregnancies. One year before, being again pregnant, vomiting became incessant and refused to yield to treatment. At that time Wiedemann had induced abortion. He had dilated the cervical canal with sponge tents, introduced the sound, perforated the membranes, and made hot vaginal douches every four hours. Although these procedures had been repeated daily for six days, they merely brought on pains lasting for several hours. On the sixth day he had chloroformed the patient and had scooped out the contents of the womb with the Simons' curette, though not completely, for after twelve hours hemorrhage with pains set in and some shreds of placenta came away. Although he had been careful to work antiseptically, an endoparemetritis gave rise to fever for a week. She is now again two months gone in pregnancy, and the vomiting again refuses to yield to treatment, even the much lauded cocaine fails of action. She is rapidly sinking, her pulse is 120–150, and the temperature is subnormal. The patient's condition being so low, his previous experience having shown that her womb reacts so badly, and the chance for infection being so great, made him adopt a method by which he could empty the uterus of its contents more promptly.

Thinking that the condition of the womb during the early month of pregnancy must be similar to that of placental polipi, which we are in the habit of treating by forcible dilatation and curettement, he concluded to empty the womb in this manner. Accordingly, the patient was chloroformed, the parts disinfected with corrosive sublimate solution, and the womb drawn down with vulcellum forceps. The cervical canal being dilated to admit the index finger by means of Fritsch's dilators,the fetus and its adnexa were removed with Martin's spoon, and under continued irrigation with thymol solution, all parts of the placenta and the decidua were completely taken away. Hemorrhage was very slight, and ceased with the completion of the operation. Time, from beginning of the dilatation to complete removal of the ovum and its membranes, twenty minutes. It was not possible, at this stage of pregnancy, to remove the ovum in toto, for on account of the length of the cervical canal his finger could not be carried up to the fundus uteri. The lying-in was normal in all respects. No fever, the pulse rapidly became lower, the vomiting stopped at once, subinvolution progressed normally, the lochia were serous by the second day and ceased by the ninth day, when the patient was dismissed with much improved strength. As a matter of interest, he would add that four months afterwards he was asked by the woman to again perform abortion on her, but refused her, as he could find no indications for the operation.

An abortion was performed at his clinic, by the same method, on a married woman, æt. 23, pregnant twelve to fourteen weeks, who had a contracted pelvis with a conjugata of 6.0 cm., and who refused to have abdominal section performed at term. The operation was as successful as the first, duration twenty minutes, very slight hemorrhage, lying-in normal.

Wiedemann thinks that the method recommended by him, forced dilatation in narcosis and évidement of the ovum, has not heretofore been used for the purpose of interrupting pregnancy, and hopes by this report to induce his colleagues to give it a trial, for he believes that this operation, so frequently employed for other purposes, should be especially adapted to produce artificial

abortion, as it is simple, rapid and safe, and enables us to avoid many of the dangers of abortion.

Fetal Therapeutics.

In an article by Dr. T. C. SMITH, published in the *American Lancet*, he arrives at the following conclusions:

1. That remedies administered to the pregnant woman find their way by osmosis to the fetal circulation, and therefore will influence the fetus quite promptly.

2. It is probable that the influence will be proportionate to the dose taken by the pregnant women, and that we should therefore exercise care in all remedies given to such women.

3. In pregnant women with decided syphilitic taint, the continued or persevering use of proper remedies tend decidedly to preserve the viability of the fetus to the end of the puerpural term, and to prepare its blood and tissues to be brought forth in a purer state than it possibly could be without such treatment.

4. Any recognized dyscrasia of the mother that is likelv to destroy the fetus may often be met and fetal viability secured to the end of term.

5. In cases of fatty degeneration of the placenta, where, therefore, the placental respiration is insufficient to maintain fetal life to the end of the term, we may hope by the use of proper remedies given to the mother to increase the respiratory capacity of the placenta and thus retain fetal viability to the end of term.

6. The violent and threatening movements of the fetus may be controlled by giving proper remedies to the pregnant woman.

7. The administration of any powerful agent to the mother may lead to the death of the fetus, if too largely given.

8. The fetus may be affected by contagion in the pregnant woman's system, when she herself does not contract the contagious disease; as in the case of Mauriceau, as given by Leishman.

9. The fetus is often destroyed by constitutional and contagious diseases that attack the pregnant woman, or to which she has been exposed; as in smallpox, scarlatina, rubeola, etc.

10. "Occasionally the child when thus affected, passes safely, while in utero, through a full course of smallpox, and is at length born with the pits of the disease alone remaining. I vaccinated repeatedly a person born under these circumstances, and always unsuccessfully." (Sir J. Y. Simpson's Obstetrical Work's, Vol. II., p. 360.)

11. "This affords presumptive proof that variolous, and perhaps other contagious febrile matter, affect the body by first entering the vascular system." (Loc. cit.)

12. "That the morbid matter can only thus pass from the mother to the fetus through the medium of the circulation, for there is no communication by the nervous system between the economy of the mother and that of the fetus." (Loc. cit.)

If our premises are true and our clinical experiences reliable, then surely we have great reason given us to see how and why we should look after the treatment of the unborn fetus, when necessary, as well as the infant that sports joyfully on its mother's breast.

A Case of Ovarian Cyst Obstructing Labor.

DR. JOHN G. CECIL (*The American Practitioner and News*):

Mrs. W., white, aged twenty-three, married three years, primipara, well formed and healthy, previous history clear, supposed herself to be at full term and expected confinement on or

about October 9, 1886. She was not cognizant of any thing abnormal in her condition.

On the 13th of October pains came on which simulated labor pains. Physicians were called, but did not find her in labor; upon vaginal examination, however, they discovered a tumor obstructing descent of the gravid uterus. These false pains continued with varying severity, effecting no progress during the 13th, 14th and 15th, when the case came into the hands of Dr. Turner Anderson, Professor of Obstetrics and Diseases of Women and Children, University of Louisville, upon the recommendation of the regular medical attendant, who was unavoidably called from the city. On the 16th a consultation with Drs. Ouchterlony and Cecil was held.

Vaginal examination at this time showed the uterine neck not entirely obliterated; the os tincæ being yet closed. No trouble was experienced in discovering a vertix presentation in the first position. Behind the cervix and anterior to the rectum, occupying Douglas' cul-de-sac, a firm elastic tumor filled the posterior half of the true pelvis. Pressure on the tumor elicited some pain. The patient, though nervous, and suffering some nausea, probably due to administration of morphine, was not much exhausted.

It being evident that labor could not progress unless the obstruction were removed, and it being equally evident that immediate relief must be obtained, the question of procedure was considered. An operation for removal of the tumor at this time was not deemed advisable. Aspiration was proposed and agreed upon, to be immediately followed by induction of labor. From the size of the abdomen and the condition of the cervix, it was estimated that gestation had advanced to about the eighth month. An attempt the day before to displace the tumor into the abdominal cavity, with the patient lying on her side, having failed, another effort at this time was made at the suggestion of Dr. Ouchterlony, with the woman in a genupectoral position. Firm pressure by Dr. Anderson with two fingers for four or five minutes per vagina and rectum solved the difficulty and resulted in the displacement of the tumor into the cavity of the abdomen. The superior strait now being clear, nothing remained but to encourage the decent of the fetal head as rapidly as possible. Accordingly, at 1:30 P.M., on the 16th, eight inches of a large Nelaton catheter were coiled up in the womb, the end of the instrument tied to the thigh, and the patient told to lie in the prone position. At 5 P.M. the same day active labor pains came on. Labor from this time went on without hindrance or unusual delay. It could not be definitely ascertained when the membranes ruptured. At 3 A.M., on the 17th, a vigorous, well-formed female child, weighing about six pounds, was delivered by Dr. Cecil, which, from appearance, lacked about three weeks from being at full term. After delivery a tumor near the size of a large orange, occupying the right hypochondriac region, could be defined, which was diagnosed an ovarian cyst.

This was surely a happy solution of what promised to be a difficult case. It is true, the tumor remains; what effect the process of involution of the uterus and other organs will produce on it remains to be seen by subsequent observation. The result of aspiration, of course, cannot be known; though untried, it certainly was indicated, and would have been practiced in the event of failure to dislodge the tumor.

DISEASES OF WOMEN.

A Study of Chlorotic Anæmia, with Special Reference to the Cardiac and Vascular Auscultatory Phenomena.

Dr. James King Crook, in an article published in the *New York Medical Journal*, June 11, 1887, gives the following summary:

Our knowledge of the pathological features of chlorosis may be expressed as follows: The disease may be said to consist in a temporary arrest of hæmatopoiesis, without fixed or well defined organic changes in the cytogenic, circulatory, or reproductive apparatus. The true histological substratum of the disease consists in a loss of the hæmoglobin of the blood. This loss is due less to a numerical destruction of the red blood globules (oligocythæmia) than to a diminution of the hæmoglobin value of the individual corpuscles (oligochromæmia). The remaining constituents of the blood are unchanged.

Concerning the causation we may say that this is *par excellence* a disease of puberty, and is intimately associated with the development of the reproductive organs at this period. The nature of this connection is not perfectly understood in our present state of knowledge. It occurs most frequently in the previously feeble and delicate, and its development is facilitated by imperfect nourishment and pernicious hygienic surroundings.

The principal symptomatic phenomena consist of a more or less intense pallor of the superficies, cardiac palpitation and dyspnœa, neuralgia in various situations, headaches and other neuropathic manifestations. The diagnosis rests upon the foregoing symptomatic features, conjoined (in most cases) with certain auscultatory signs in the heart and great vessels, consisting of the arterial systolic bruit and the venous hum. Graver forms of blood disease are excluded by the absence of pyrexia and splenic or lymphatic enlargement.

The treatment of chlorosis consists in placing the patient under as good hygienic conditions as possible, in the observation of a nutritious regimen, and especially in the administration of large doses of iron. The curative value of ferruginous preparations has been amply attested both by clinical experience and experimental research. Other symptomatic indications which may arise are to be met as occasion requires.

Vesico-Vaginal Fistula. Vesical Spasm.

Dr. Prewitt (*St. Louis Medical and Surgical Journal*) says:

I will report two cases of vesico-vaginal fistula I have had recently, and which are interesting from the circumstances connected with them. In one of the cases a physician in Illinois had attended the woman in labor, which had lasted for about eighteen hours, when he applied the forceps and delivered her. A fistula followed, and the husband at first was disposed to think that it was the result of the use of the forceps. Some doctor had told him that this was the cause, and he was disposed to sue the attending physician for malpractice. The doctor wished me to take charge of the case and also tell the parties my view of it. The doctor said, in his letter, that the labor had been rather tedious, and had lasted eighteen to twenty hours, when the head became engaged in the outlet of the pelvis, and he used the forceps to deliver her. I examined the patient and found a fistula at least an inch and a half in length, lying pretty well back. The cervix itself was so greatly lacerated and ragged, that had she not been a young woman, and just delivered, I would have been

tempted to believe that there was an epithelioma. After a few days I operated, passing the stitches from the right extremity through a portion of the lacerated tissue about the cervix, so that I had some doubt about the union being complete, and told her so. She was very anxious to get back, and couldn't wait until the parts were entirely healed. Union occurred throughout the greater portion of its extent; but there was a very small opening left at the point where the stitches had passed through the lacerated tissue. I wrote to the physician that the fistula was not the result of the use of the forceps, but that he applied his forceps too late. The forceps are applied laterally, and could not by any possibility touch that part of the vagina. The trouble was that the forceps, in this case, were not used early enough. I simply wanted to bring the matter before the society, because there still seem to be some doctors who are ignorant enough to suppose that the use of the forceps could produce vesico-vaginal fistula.

Another case of considerable interest to me, I operated on about two weeks ago, a woman who had been operated on five times before by three different surgeons, each time the operation proving a failure. In that case the excoriation and swelling of the labia and parts were something tremendous, the labia were as big as my two fists, and red and angry, covered with a little phosphatic deposit, which is frequently found in such cases, and the itching was agonizing. The poor woman suffered perfect torture every night. It was absolutely necessary to get the parts in better condition before any operation was attempted, and I kept her in the hospital perhaps three weeks, using the douche, administering benzoic acid and borax internally, and finally the parts improved very much and became in much better condition, so that I operated. A peculiar circumstance was, that I placed in the bladder a self-retaining catheter, and within a short time there commenced such a spasm of the bladder as I never before saw. I attended her for three or four hours, and in the meantime she had been suffering perfect agony. When I was called to see her, I attempted to remove the catheter, and it required quite an effort to pull it out. The mucous membrane seemed to be forced into the little openings in the self-retaining catheter, so that it required quite an effort to draw it out. I was puzzled to know what to do. I replaced the catheter, but the trouble began again as violently as ever. I introduced a small, soft catheter into the bladder, and she was able to retain it, at least with the use of rectal injections of McMunn's elixir, freely administered, and I replaced the large one the next morning. The catheter got out several times, and she passed water through the urethra. I think the next day she passed water through the urethra, and several times during the week before the removal of the stitches, she did so; and she preferred it so much to the draining of the catheter, that I think she was anxious to do it and not have the catheter replaced. On the eighth day I removed the stitches. I find since, on applying the speculum, that there is some leakage. She told me that she had suffered from these spasms of the bladder after the other operations, but it did not occur to me to take any precautions against it. Probably, had I profited by the experience of the others, I might have avoided this by using either a soft catheter primarily, or by the use of McMunn's elixir by the rectum or by suppositories. The soft catheter did not seem to provoke the spasm; whether she would have had

it had the soft catheter been used first, I cannot say.—*St. Louis Medical and Surgical Journal.*

The Cause and Purpose of Menstruation.

The object of this paper is to obtain an answer to the following questions:

1. Is ovulation periodic or not? 2. What connection exists between ovulation and menstruation? 3. Is there any connection between menstruation and conception? The researches of Raciborsky, Pflüger, Leopold and others, seemed to prove that there is a decided connection between ovulation and menstruation. Autopsies on many healthy women, dying suddenly during menstruations, have revealed, in the majority of instances, the presence of a ripe or ruptured follicle on the surface of the ovary. The inference is therefore justifiable that ovulation accompanies menstruation, occurring either before, or just at the beginning, or at the end. This inference, however, is denied by many on the ground that the rupture of the Graafian follicle is known to occur also in the intermenstrual period, whence the opposite inference that there exists no causal relation between menstruation and ovulation. The weight of evidence at the present day points to ovulation not dependent on menstruation, and also not periodic. Such being admitted as the case, how are we to account for the periodicity of menstruation? Leopold's explanation is the following: Menstruation is a phenomenon typical of the female organism, its motor cause residing in the ovaries, its immediate source being the uterus. Its periodicity analogous to other vital phenomena of the organism—pulse and respiration for instance, the rhythm of which we are as unable to account for as the regularly recurring monthly uterine hemorrhages. F. considers the periodicity of menstruation to be rather analogous to the erection of the penis and ejaculation of semen in the male. The friction on coitus leads in a reflex manner to ejaculation of semen. Ejaculation is speedy after abstinence, the more frequent the act of coition the greater the amount of friction requisite before the reflex is strong enough to lead to ejaculation. Similarly with menstruation. Each ripening follicle is a cause of irritation to the ovarian nervous supply. This irritation is propagated to the sympathetic system and its vaso-motor filaments. From the irritation of the vaso-motors there result dilatation of the pelvic blood vessels, hyperæmia of the pelvic organs, evidenced by the sensation of congestion and fullness in the pelvis which women experience about the time of the periods. When this irritation becomes powerful enough—it being added to by the ripening of other follicles—there results menstruation, which is the external evidence of the inward congestion. (This theory is rather fanciful, and takes absolutely no account of the not rare cases where conception occurs during lactation, in the absence of menstruation and yet necessarily in the presence of ripening of Graafian follicles.) It having been proved that ovulation goes on uninterruptedly, should not conception be as likely to occur at one time as at another? Heuser has investigated carefully the subject of conception and reached the following deductions: The majority of conceptions result from the coitus occurring within a few days after menstruation. During menstruation, the chances of conception increases the nearer coitus to the end of menstruation. The number of conceptions following coitus before menstruation is small. At no time, however, during menstruation or in the intermenstrual period, is conception impossible. Since, however,

tempted to believe that there was an epithelioma. After a few days I operated, passing the stitches from the right extremity through a portion of the lacerated tissue about the cervix, so that I had some doubt about the union being complete, and told her so. She was very anxious to get back, and couldn't wait until the parts were entirely healed. Union occurred throughout the greater portion of its extent; but there was a very small opening left at the point where the stitches had passed through the lacerated tissue. I wrote to the physician that the fistula was not the result of the use of the forceps, but that he applied his forceps too late. The forceps are applied laterally, and could not by any possibility touch that part of the vagina. The trouble was that the forceps, in this case, were not used early enough. I simply wanted to bring the matter before the society, because there still seem to be some doctors who are ignorant enough to suppose that the use of the forceps could produce vesico-vaginal fistula.

Another case of considerable interest to me, I operated on about two weeks ago, a woman who had been operated on five times before by three different surgeons, each time the operation proving a failure. In that case the excoriation and swelling of the labia and parts were something tremendous, the labia were as big as my two fists, and red and angry, covered with a little phosphatic deposit, which is frequently found in such cases, and the itching was agonizing. The poor woman suffered perfect torture every night. It was absolutely necessary to get the parts in better condition before any operation was attempted, and I kept her in the hospital perhaps three weeks, using the douche, administering benzoic acid and borax internally, and finally the parts improved very much and became in much better condition, so that I operated. A peculiar circumstance was, that I placed in the bladder a self-retaining catheter, and within a short time there commenced such a spasm of the bladder as I never before saw. I attended her for three or four hours, and in the meantime she had been suffering perfect agony. When I was called to see her, I attempted to remove the catheter, and it required quite an effort to pull it out. The mucous membrane seemed to be forced into the little openings in the self-retaining catheter, so that it required quite an effort to draw it out. I was puzzled to know what to do. I replaced the catheter, but the trouble began again as violently as ever. I introduced a small, soft catheter into the bladder, and she was able to retain it, at least with the use of rectal injections of McMunn's elixir, freely administered, and I replaced the large one the next morning. The catheter got out several times, and she passed water through the urethra. I think the next day she passed water through the urethra, and several times during the week before the removal of the stitches, she did so; and she preferred it so much to the draining of the catheter, that I think she was anxious to do it and not have the catheter replaced. On the eighth day I removed the stitches. I find since, on applying the speculum, that there is some leakage. She told me that she had suffered from these spasms of the bladder after the other operations, but it did not occur to me to take any precautions against it. Probably, had I profited by the experience of the others, I might have avoided this by using either a soft catheter primarily, or by the use of McMunn's elixir by the rectum or by suppositories. The soft catheter did not seem to provoke the spasm; whether she would have had

it had the soft catheter been used first, I cannot say.—*St. Louis Medical and Surgical Journal.*

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ovulation goes on constantly, why, F. inquires, is conception more likely to occur at the end of menstruations and on the few days thereafter? The answer to this question may be obtained from a study of the changes which occur in the mucous membrane of the uterus before and after menstruations. From the researches of Leopold and of Wyder and others, these changes may be briefly resumed as follows: shortly before, during, and partially after menstruation, the uterine mucous membrane is hyperæmic, the glands distended, the secretion increased, the muscular walls of the uterus softened, and the blood vessels widened—in short the entire organ is in a condition of excessive nutrition. Coincidently with the onset of menstruation, the epithelium of the mucous membrane becomes fattily degenerated, and, at the cessation of menstruation, this epithelium is renewed. It is evident now that the impregnated ovum can ingraft itself more readily, and finds conditions suitable for its development whilst the above changes are going on in the uterine mucous membrane, than when this membrane is covered with intact epithelium. The shedding of the degenerated epithelium reaches its maximum at the end of menstruation, at a time when regeneration of epithelium is just beginning. The most favorable time, therefore, for the ovum to engraft itself is within a few days following menstruation. A further question to be answered is, how to account for the cases where women have repeatedly conceived and yet never menstruated? At the outset, it has never been proved that the same changes do not occur in the mucous membrane of the uterus in such cases as where menstruation has occurred, and further, in many such women, close inquiry reveals the fact that, whilst there has never occurred menstruation in the sense of a red discharge, there has existed a more or less profuse white discharge, which takes the place of the customary red. In short, menstruation is not to be judged by the blood which appears externally, but by the changes in the mucous membrane of the uterus, are the causes of menstruation.—*Arch. f. Gyn.—Obstetric Gazette.*

Insanity and Oöphorectomy.

The following is a portion of the discussion on a paper read before the N. Y. Post Graduate Clinical Society, by Dr. W. M. Leszynsky, on this subject:

Dr. Porter stated that, while he could not be called a laparotomist, he was in the habit of opening abdomens after the surgeons had got through with them, and he believed that the success of an operation was largely dependent upon the condition of the liver. In fifteen or twenty surgical cases which had ended fatally after the operation, he had found either interlobular or intralobular disease, or else fatty degeneration. Where the conjunctiva was colored and there was a muddy complexion, with a small quantity of urine loaded with urates or uric acid, the case was apt to progress badly. He believed further that this condition of the liver had a great deal to do with the symptoms for which the operation was performed. He recalled the case of a young women having persistent pain in the back and in the region of the ovaries and also scalding urine. Examination had showed the liver and the kidneys inactive, the patient passing but twelve ounces of urine in twenty-four hours, heavily loaded with uric acid. Leaving the uterus and ovaries alone, he had directed his treatment to this condition, and today the patient was passing from fifty to sixty ounces and was excreting urea instead of uric acid, and her pains had

disappeared. He would also like to ask what constituted a diseased ovary. If cystic and fibroid changes could be so denominated, then every woman who had menstruated had diseased ovaries, because these changes were inseparable from the physiological hemorrhage and repair. During the past ten years he had examined many specimens of ovaries—those taken from the child of five weeks to those from the woman of eighty or ninety years of age—and he had never seen an ovary which was not cystic. In his opinion, an operation was not indicated except where the cyst commenced to grow rapidly and pressure symptoms appeared.

Dr. S. E. Post stated that in her opinion also the pain and the reflex symptoms connected with diseased ovaries and tubes were due to pressure upon the diseased part—in salpingitis, pressure upon the fimbriated extremity of the tube. When congested, the Fallopian tube folded backward and the extremity lay behind the uterus. This extremity might become hypertrophied and nodulated, and was often undoubtedly mistaken for an ovary in this position. It was, as a rule, extremely sensitive, even a slight examination giving rise to a persistent aching pain, but seldom or never causing the nausea and the disturbances of vision which appeared where the ovaries were concerned. Lying between the uterus and the rectum, this body was subjected to a good deal of friction and pressure, the latter being in the long standing case aggravated by a matting of lymph or even inflammatory adhesions. The shortening of the posterior *cul-de-sac* was often a consequence of this condition. In cases of prolapsed tubes, as well as in those of prolapsed ovaries, the elevation and protection of the sensitive part had been the object of treatment. In some cases simply stretching the *cul-de-sac* had relieved the pain without altering the relations of the tube, while in others the extremity of the tube had been apparaently liberated so that it spontaneously rose to its proper place. Also after elevation a discharge had sometimes been noted, suggesting the drainage of the tube through the uterus. In three cases a pronounced inflammation of the vulva had been the result; in others the discharge had not irritated the parts. In the opinion of the speaker, catarrhal salpingitis could often be traced to puerperal conditions; it was very common; it included the greater part of the cases classed as celulitis in the books, and its symptoms could, as a rule, be relieved by protection, rest, and the hot douche. It would be as rational to perform hysterectomy for endometritis as to do Tait's operation for this disease.

DISEASES OF CHILDREN.

Diagnosis and Treatment of Congenital Atresia of the Anus and Rectum in New Born Infants.

According to BODENHAMER (*Revue Mens. des Mal. de l'Enf.*), the principal varieties of this condition are:

1. A contracted condition of the anus at its orifice.

2. Such an arrangement of the membranes of the organ in folds that the sphincter ani is deformed.

3. The anus and rectum may be well developed, but the anal orifice is closed by a membrane which is sometimes thin, and others thick and resisting.

4. Absence of the anus. The scrotal raphe is continued as far as the coccyx. The rectum may also be entirely absent.

5. An abnormal orifice which fills the functions of the anus and occupies its place. The rectum and colon may be wholly or entirely wanting.

6. The rectum terminating in a *cul-de-*

sac more or less remote from the perineum. The walls of the *cul-de-sac* firmly fixed to the surrounding tissues. No trace of an anal orifice.

7. The rectum separated from the anus, which is regularly formed by a more or less thick circular band. The lumen of the anus of normal calibre.

8. The anus normal. The anal extremity of the rectum transformed into a fibrous cord, which in some cases is terminated by a kind of sac.

9. The anus and the contiguous portion of the rectum presenting a normal formation. Higher up the walls of the rectum united for a greater or less extent, the rectum being thus completely obliterated.

10. The entire lumen of the rectum occupied by a fibrous new formation. The anus absent.

11. The rectum terminating in the bladder, the urethra, the vagina, the uterus, or, in a cloaca, the exploring finger sometimes finds an imperfect anal orifice, which admits it for a distance of several lines, but a well formed anus never found.

12. The rectum opening by an abnormal orifice into the sacral region. This abnormal orifice prolonged into a fistulous canal, which may open into the perineum, the penis, the labium majus, etc. A normal and well formed anus is never seen in such cases.

13. The colon terminating in a *cul-de-sac*, which in some cases is free in the cavity of the pelvis or in the abdomen ; in others is attached to the walls by fibrous bands. The place which should be occupied by the rectum filled with cellular tissue.

14. Neither anus nor colon. In such cases there may be an abnormal anus situated in some portion of the body, and establishing communication with the cæcum, or large intestine.

15. Malformation of the anus or rectum complicated with a deformity of some other character, whether a scrotal fissure, a spina bifida, or imperfect development of the extremities, etc.

Even this enumeration does not exhaust the list of possible malformations of the anus and rectum, in the author's opinion. Six cases are narrated in which different varieties of deformity were found. Death occurred in three of them. Suggestions are made which are intended to be of service in diagnosticating these conditions. Of thirteen colotomies which have been reported by the method of Littré, nine were successful. Of ten colotomies by Callisen's method, only three recovered. The operation of Littré is thought to be easier of execution, and also safer, than that of Callisen.—*Arch Pediatrics.*

Infant Feeding.

DR. E. PAGET THURSTAN :

It is generally recommended, if the milk curdles (1) to add lime water ; (2) to add barley water ; (3) to add dilute concoctions of linseed ; (4) to employ solution of isinglass ; (5) to use cream and water, excluding the curd ; (6) to abandon milk altogether, and use veal tea, beef tea, or well skimmed mutton broth. This last plan is of great service, when in hot weather acid fermentation is quickly developed, or when alarming vomiting and gastritis occur ; but it is obviously only a temporary expedient. As regards the other plans, the favorite and almost routine treatment is the lime water plan. Now, lime water, so far as my experience goes, sometimes produces sickness ; and, any way, it cannot be right to give medicine daily for months if there be any reasonable alternative, for what we want in these cases is a diet which can be given for months together without producing indigestion. Of the

other plans enumerated above, the cream and water diet seems to be excluded by the fact that the curd alone possesses the nitrogenous casein which is necessary for perfect nutrition. The problem we have to solve is how to make the curd digestible ; to exclude it altogether is to cut the Gordian knot.

The preparations of barley, linseed, or isinglass, are not open to the above objections, but there are practical difficulties in the way of preparing them suitably in sufficiently small quantities at a time. The theory on which the use of these is founded is, that in children with excessive secretion of gastric acid the milk can be prevented from curdling too rapidly by adding something to thicken the milk and entangle the curds as they form. This theory is plausible, and, to my mind explains the facts fairly well. On this view the function of the barley water or isinglass is mainly, if not entirely mechanical. If so, why not allow a small amount of farinaceous food on the same ground? I have accepted the logical deduction from this reasoning in my practice, and I feel sure that no diet produces so uniformly good a result as milk thickened with farinaceous food of some kind. The crust of bread (when free from alum and large quantities of potato starch), Brighton biscuit, or one or other of the well known infants' foods may be used, but only in very small quantities, so that the milk can still be sucked through the tube of a feeding bottle. I do not think it much matters which "food" is used, as I believe that when given in this way in early life, its function is mainly mechanical, viz., that the particles of solid entangle the curds as they form, and prevent them from coalescing into one large mass. It must be borne in mind that many people hold the view that this tendency of cow's milk to form masses, is not due to any excessive acidity in the child's stomach, but to a provision of nature, whereby the calf is able to regurgitate the milk and ruminate. I do not know whether it is a fact that calves chew the curd as their mothers do the cud, but it is certainly the case that the condition of acidity in the child has something to do with it, for it is a known fact that the offspring of gouty and rheumatic parents have more trouble in the way of digestion than the, in other respects, more delicate infants of scrofulous or tuberculous parents.

It has been proposed to overcome the difficulty of digestion by preparing milk with pepsine and pancreatine. Now this plan seems to me objectionable. Nature's revenge on all parasites is to deprive them of the organs which they refuse to exercise. If we habitually rear children without putting them to the necessity of digesting their food for themselves, we ought not to be surprised if we finally evolve a race of beings totally without digestive functions of any kind! Short of this extreme view, the tendency does not seem a wise one.

Finally, we ought perhaps to consider the claims of condensed milk. That the curd of this milk is more digestible than the curd of most forms in which milk is taken is, to my mind, indisputable, A new drawback, however, makes its appearance. Condensed milk is, in plain English, milk jam, and the excess of cane sugar produces indigestion in a new way, while moreover, the condensation seems to deprive the milk of much of its saline constituents, and removes material required for bone formation.

We are forced back, then, to the farinaceous foods in very small quantities, added to cow's milk and water, as being the best artificial diet for children. The vendors of the various foods for infants

lay great stress on the fact that the starch of the wheat has undergone some chemical change which renders it easier for digestion. This may be true to some extent; the diastase, when present, may convert a portion of the starch, but this (in the early weeks of life, at all events) is probably a secondary function. The following case, which has recently occurred in my practice, will illustrate my views, and, I think, confirm their correctness.

The wife of a well-to-do tradesman was prematurely confined of a female child nine weeks before she was expecting; the presentation was breech and footling. When the child was born, it was cyanosed and made no attempt to breathe. After performing artificial respiration for five minutes the breathing became fairly established, but the child was still cyanosed, and did not cry. I cut the cord and bled the child to two drachms, after which it cried fairly strongly. The mother had never been able to nurse her children, and no attempt to do so was made now. It was fed on milk and water, half and half of each. The weather being hot, we had no difficulty of keeping up the warmth of the child, and for a few days all went well, except that the child could not be induced to drink more than half a pint of milk daily. Three days after birth it weighed 3 lbs. 8 oz. A week later it weighed 3 lbs. 9½ oz. In the meantime the cord and the surrounding rag had come away, so that the actual gain could not have been more than an ounce, probably less. Shortly after this, sickness and slight diarrhœa came on. Veal tea was ordered with the milk, and cream and water twice a day, instead of entire milk and water. Some powders were given, containing a third of a grain of mercury and chalk, with a little aromatic confection, ipecacuanha, and rhubarb. The diarrhœa and sickness abated, but the child was still taking very little. Eight to ten drops of brandy were added to the milk three times daily. At the end of another week the weight was 3 lb. 10 oz., being a gain of only ½ oz. The child was now fed on milk, thickened with a little patent farinaceous food. The following week the weight was 4 lb., the gain being 4 oz. The week after the weight was 4 lb. 9½ oz., being a gain of 9½ oz. The child is now doing well.—*Maryland Medical Journal.*

Diagnosis and Complications of Varicella.

The author reports in this paper a lecture of Grancher's, from which it appears that there are still obscure points in respect to this disease. Regarding prophylaxis, it is important that one should not confound varicella with varioloid. If the case is one of varicella, isolation is unnecessary, but if varioloid, isolation should be as rigid as for variola, considering the fact that the attenuated virus from a patient with varioloid may be the cause of a grave or even fatal variola. Trousseau bases the differential diagnosis of varioloid and varicella upon the following points: In varicella there is little or no fever, and the eruption occurs simultaneously with or not more than twenty-four hours after the first prodromata. In varioloid there is a fever of invasion lasting three days, the eruption coming on the fourth Varicella is evolved in successive epochs, the first vesicles being dried up when the second crop appears. The eruption spreads itself indifferently over the trunk, face, and limbs. In varioloid the first papules usually appear upon the face, then upon the limbs and trunk. It may be two days in developing, but there is only one crop. In varicella the eruptive element is a vesicle resting upon a red base, with thin walls and translu-

cent contents, which dry up in two or three days if not discharged. In varioloid there is a papule which developes into a vesico-pustule; it may become umbilicated, and the desiccation of its purulent contents requires eight or nine days. Varicella must also be differentiated from other conditions, however. Among them are *prurigo varicelli forme*, a chronic cutaneous affection, which was described in 1875 by Jonathan Hutchinson. This condition usually begins as true varicella; it has successive crops of vesicles and bullæ which may be separated from each other by quite an interval of time, and may suggest successive attacks of varicella. The eruption is accompanied by intense pruritus. If the largest vesicles are broken, suppuration will follow, and a condition which resembles ecthyma. The seats of election for this eruption are upon the flexor surface of the joints, and the plantar and palmar surfaces of the extremities. Emaciation and death not infrequently are the results with children who have this disease. Another condition for differentiation is afforded by the varicelliform syphilides which have been described by Duhring, and which form a portion of the late secondary developments of syphilis. The diagnosis is facilitated when other characteristic phenomena of the disease are present. The bullæ of pemphigus are usually much larger than the vesicles of varicella, and their conditions of development are different. They have been mistaken, however, for the eruption of varicella. A vesicular, varicelliform eruption may also be the result of medication with preparations of arsenic, bromide, iodine, and even quinine. Grancher disagrees entirely with Hebra and Kaposi, who insist upon the identity of varicella and varioloid. There is no doubt as to the inoculability of varicella. Steiner, of Vienna, has succeeded in reproducing it eight times out of ten inoculations. He found the average period of incubation to be eight days. Prior has reported the coexistence of varicella with scarlatina, and Henoch with rubeola. In some cases, especially in those which are associated with whooping-cough, it may have an hemorrhagic appearance, and in cachectic subjects even a gangrenous character. It is well to know that it is possible for the disease to end fatally,—for example, in cases in which broncho-pneumonia occurs as a complication or a sequel. Acute parenchymatous nephritis is also an occasional complication, manifesting itself between the fifth and the twenty-first days, beginning with hæmaturia, ischuria, albuminuria, showing epithelial casts in the urine, producing anasarca, and posssibly death from pulmonary œdema or uræmia.—*Arch. Pediatrics.*

Treatment of Infantile Eclampsia.

In the course of a well written article on this subject by Dr. JULES SIMON, in the *Journal de Médecine de Paris*, he says "since the digestive tube is almost invariably the seat of the prime cause of infantile eclampsia, our first care should be to evacuate the intestines by purgative lavements. If possible, an emetic should also be given by the mouth, but if the convulsions do not admit of this, an injection containing 7 grains of chloral, 15 grains of camphor and 20 drops of tincture of musk should be given by the rectum. Where the spasms have a tendency to recur at intervals of several hours, and there is no fever, a mustard bath will be found of great service. If convulsions persist, a blister should be applied to the back of the neck, which should be left in place for three hours only, and be replaced at the expiration of this time by a cata-

plasm. At the same time the following may be administered: ℞. Potassium bromide, gr. xv to xxx; musk, gr. iss; cherry-laurel water, ℥ iv; syrup of codeine, ʒ iss; slippery elm water, ʒ iii. M. Simple syrup, enough to sweeten.

The dose is a tablespoonful repeated p. r. n. It will be seen that M. Simon differs from Trousseau and others who are opposed to blisters and mustard, but he orders these cutaneous revulsives only when the patient is insensible and when they consequently cannot excite reflex convulsive effects. In convulsions due to albuminuria or uræmia, Simon recommends the application of leeches, one or two behind each ear, or to apply the scarificator and cups to the lumbar region and take from one to two ounces of blood. Even anæmic children will stand this loss under the circumstances. Children which seem predisposed to eclampsia and have frequent attacks should receive small doses of potassium bromide (3 or 4 grains) repeated from time to time, every three or four days.—*St. Louis Medical and Surgical Journal.*

Incubation of the Infection of Measles.

Dr. Sevestre, in a thesis recently published, demonstrates the fact that the period of incubation in measles is almost invariable—between thirteen and fourteen days elapsing between the moment of infection and the appearance of the rash. The fever appears four days earlier, viz.: between the ninth and tenth day. Another fact, and one of far greater importance, has been determined by Dr. Sevestre, and that is that the infective power of the disease commences with the first moment of prodromic manifestations, viz.: of the appearance of fever, and continues with unabated virulence until the eruption, after which its infective power diminishes very rapidly, vanishing entirely on the fifth day thereof. In the analysis of many hundred cases, not one instance of infection after the fifth day of eruption (the 18th or 19th after exposure) could be found. The practical bearing of these facts are manifest. They furnish a sure and valuable guide on points upon which the profession and laity have strangely blundered hitherto, viz.: the proper time for isolation of the patient. The habit of sending off the apparently unaffected members of a family while the fever in an affected one is at its highest, is the surest method of transporting the infection and creating new foci of disease.—*St. Louis Med. and Surg. Journal.*

OBSTETRICS.

A Successful Case of Cæsarian Section.

Dr. William T. Lusk (*New York Medical Journal*):

B. C., primipara, aged twenty-four, had an oblique pelvis, and the promontory projected to a marked degree into the pelvic space. While with these dimensions it did not seem impossible to remove the child by craniotomy, still the risks of extracting the child through the natural passages, owing to the combined transverse and antero-posterior narrowing, I concluded would equal if not exceed those to which the woman would be exposed if subjected to Sanger's operation—*i. e.*, the old Cæsarian section, modified by the employment of an exact series of deep muscular and superficial peritoneal sutures for the closure of the uterine wound. In this decision I was sustained by Dr. I. E. Taylor and Dr. H. J. Garrigues.

The operation was begun at 3.30 p.m. in one of the public wards, without preliminary disinfection, as the private pavilions were in use, and the woman was in labor. Dr. Garrigues kindly assisted

me. His thorough knowledge of each step in the operation proved of great value to me. The incision through the abdominal wall extended from a point three inches above the naval to within two inches of the symphysis pubis. The uterus was then tilted with its left border to the front, and everted from the abdominal opening by firm downward pressure upon the abdominal walls. After the uterus had been turned out, the intestines were retained by a large flat sponge placed behind the uterus and beneath the abdominal parietes. A piece of rubber tubing was placed around the lower segment to control hemorrhage.

The exposed uterus was wrapped in towels, wrung out in a warm corrosive-sublimate solution (1 to 5,000), which were replaced at short intervals. A short incision about two inches in length was first made in the median line near the lower uterine segment. The tissues were divided slowly and with care until the membranes were exposed. Then with scissors the incision was rapidly extended upward toward the fundus, until on opening five inches in length was obtained. As the uterus contracted, the membranes formed a hernial protrusion from the wound. Owing to the elastic ligature the incision was nearly bloodless. While Dr. Garrigues drew the abdominal walls tightly around the uterus, to protect the peritoneal cavity, the membranes were ruptured. The child presented by the head, in the left occipito-anterior position. A knee was seized, and the child was rapidly extracted. It weighed five pounds and a half, and was deeply cyanosed, but was happily resuscitated by my friend, Dr. A. B. Ball. The separation of the membranes and placenta was accomplished by tractions upon the protruding sac, and by means of two fingers inserted between the decidua and the uterine walls. The uterine cavity was carefully sponged with a corrosive-sublimate solution (1 to 10,000). With the removal of the child and the subsequent retraction of the uterus, it became necessary to employ towels, rendered aseptic by immersion in warm corrosive sublimate solution to keep back the intestines. Owing to the arrest of the circulation by means of the elastic ligature, the uterus presented a pale, waxy appearance.

In the closure of the wound carbolized silk was used. According to Dr. Taylor's count, thirty-four sutures in all were employed. Of these, probably sixteen were deep and the others superficial. The deep sutures were introduced about a third of an inch from the cut border, and were passed obliquely inward, so as to avoid impinging upon the mucous membrane. The superficial sutures were inserted at short intervals, to secure complete approximation of the peritoneal surfaces. The Lembert stitch was employed. No lifting of the peritoneum nor resection of muscular tissue was found necessary. When the temporary ligature was removed, the blood slowly returned to the pallid organ, which, from a waxy white, became at first suffused with a pale pink, the color then gradually deepening to a rose red, and finally to a dark purple hue. A little oozing from a stitch wound at the placental site was observed as the blood returned to the organ. After twenty minutes, during which hot water applications, pressure, and deep sutures at a right angle to the bleeding stitch were vainly resorted to to arrest the oozing, the uterus was returned to the abdominal cavity, a drainage tube was inserted behind the organ, and the abdominal wound was closed by ten silver sutures. Owing to the extreme contraction of the antero-posterior pelvic diameter, there was no room for the drainage tube.

At the close of the operation the patient's condition was excellent. The time occupied was one hour and fifteen minutes. For two days subsequent to the operation the temperature was below 100° F. At the beginning of the third day, the temperature (afternoon) rose to 105° F. On the fourth day there was considerable tympanites, which was relieved by three grains of calomel followed by a Seidlitz powder and an ox-gall enema. The highest temperature (105.8°) occurred on the fifth day, but fell, however, to 100.5° after a large spontaneous evacuation of the bowels. On the sixth day the temperature was 99.5°. As the serum from the abdominal cavity had become colorless, the drainage tube was withdrawn. On the seventh day the abdominal stitches were removed. On March 31st the temperature was 101.6° F. The child was weighed on the 24th of April, and was found to have gained three pounds and a quarter.

Simplification of Cæsarian Section.

The pendulum has again moved in favor of the Cæsarian section as against Perro's operation. The brilliant successes of Sænger, of Leipsic, and others have induced most German operators to follow his example—when they can *i. e.*, in all cases where the Perro form is not unconditionally called for. If this is to be the operation of the future, and it can only be so under certain conditions, one of which is that the operation shall not be so long delayed that the uterus has ceased to be a healthy organ, it is of the utmost importance that the details should be rendered as perfect as science and art will allow. It is well known that Sænger's modification consists in part in paring the edges of the wound, taking care to preserve the peritoneum, covering the cut surfaces with the peritoneum thus placed at liberty, and suturing so that each ligature shall pass through both layers of peritoneum on each side, and thus through four layers in all. Professor Leopold, of Dresden, son-in-law of the distinguished veteran Credé, has operated a number of times, and each time successfully. Hitherto he has used silver sutures for the uterine wound, but reflexion has led him to the fear that such a stiff material might prove inconvenient in the event of subsequent pregnancy. He has therefore been led to employ chromic acid catgut in the place of silver wire, both for deep and for continuous superficial sutures, and also for the abdominal wound. The catgut was prepared according to the direction of Mikulicz, the fresh catgut being first steeped for forty-eight hours in a ten per cent. solution of carbolized glycerine, then for five hours in a ½ per cent. solution of chromic acid, and afterwards preserving in absolute alcohol. The principles he lays down for the performance of the operation are as follows :—

1. Complete closure of the abominal wall by temporary sutures, after bringing out the uterus, but before opening it.

2. Control of the hemorrhage after the uturine incision. Usually elastic tubing is placed around the neck of the uterus and drawn tight when the incision is made. Pressure may, however, be made manually if thought better.

3. Careful cleansing of the uterine cavity from all pieces of decidua. To this end the uterus is sufficiently inverted to allow of its inner surface being examined, special care being taken to cleanse the tube openings ; a sponge wrung from a five per cent. solution of carbolic acid is placed in the column and the inner surface is lightly sprinkled with iodoform. A carbolized sponge is also placed in the uterine cavity.

4. Careful coaptation in closing. Trimming by undermining the serosa is not considered necessary. Ten to twelve deep sutures are applied, which are tied after they are all inserted, then a superficial running suture.

5. Excitation of pain by hand massage of the uterus after suture. An assistant grasps the uterus, whilst the elastic tubing is removed, and by kneading and pressure excites powerful and permanent contraction.

Leopold now reports two additional successful cases operated on after the method described. A further case is also reported in the *Semaine Médicale*, 5, '87, by Dr. Bar, in which the genital passages were completely blocked up by a hard and high reaching carcinomatous tumor. He performed a modified Sænger's operation, so far as in the place of inserting the sutures in "stages," he passed them through the whole thickness of the uterus, including both serosa and mucosa. Serosa was then united to serosa by additional sutures. Dr. Bar believes that Sænger's is the operation of the future.—*Obstetric Gazette.*

[The Leipsic clinic has had seven Sænger operations saving all the mothers and all the children. At Dresden, fourteen out of fifteen mothers have been saved and all the children. Credé, Archiv. f. Gynæk. Bnd xxx, Heft 2, gives the results of fifty operations, the total number thus far reported and one with the improved *technique*. Of the fifty cases, 72 per cent. were successful. In Germany, the percentage of cases saved is over 88. Lusk has the honor of the first American success. The first fifty Poro operations show 42 per cent. of recoveries, and later experience has not improved its percentage.] J.

Placenta Prævia.

DR. DANIEL LONGAKER said that he desired to reopen the discussion on this subject to submit a few clear and distinct rules of practice in that grave emergency. In a recent debate in this society it had been quite evident that our ideas were not so clear as they should be. One of the methods of treatment, and the best one that had ever been pursued in the appropriate class of cases—a method which would be found the best in the vast majority—had even been regarded with skepticism. He referred to the treatment by means of bimanual version after the manner of Braxton Hicks, a plan by which three operators—Behm, Hoffmeir, and Lomer—had saved ninety-two out of ninety-three patients under their personal care. (*American Journal of Obstetrics.*) He would like to detail briefly his last case. The patient, a multipara aged 28 years, had called him at 4 P. M., April 19, 1887. The anticipated date of confinement was one month later. Eight days before date she had had a trifling loss of blood, but had not sent for him. He was called because of a sudden hemorrhage coming on without pain while she was walking across the room. It was difficult to estimate the quantity of blood lost—it was not more than half a pint. Arriving a half hour later he found that the os admitted barely two fingers. The placenta was on the right side at the margin of the internal os; a slight flow of blood continued; she had had a few pains in the hypogastrium. Bimanual version was at once decided upon; two fingers of the right hand in the vagina pushed up the head, while the left depressed the breech down toward the right side. As soon as the head was above the linea terminalis the right hand also manipulated from the outside, raising the anterior shoulder toward the left hypochondrium, the left hand constantly manipulating the breech toward the pelvic brim.

As soon as version was completed the two fingers of the right hand were introduced into the vagina and the membranes ruptured at the margin of the placenta. A leg was ready to drop into reach of the index finger ; it was brought out, displacement of the cord being carefully avoided. The delivery was left to the natural efforts up to the expulsion of the shoulders. The arms were extended, and were easily brought down, and the head was quickly extracted. Hemorrhage was practically absent after the leg had tamponed the dilating cervix. The child cried almost immediately and had since thriven remarkably. There was slight post-partum hemorrhage, but not a single unfavorable symptom, and the mother was about on the ninth day feeling perfectly well. No anæsthetic was used, and, as illustrating the ease with which turning by the bimanual method might be done, he might say that the patient did not know this had been done. In order that our ideas might be as definite as possible, the speaker would emphasize the points made in narrating the history of the case by a few quotations from Lomer's valuable contribution : 1st. "Turn by the bimanual method as soon as possible." 2d. "Pull down the leg and tampon the ruptured vessels of the placenta with it and the breech of the child." 3d. "Do not extract the child then." 4th. "Do away with the plug as much as possible. It favors infection and valuable time is lost by its application." 5th. "Do not wait to turn until the cervix and os are sufficiently dilated to allow the hand to pass." 6th. "Turn as soon as you can pass one or two fingers through the cervix." 7th. "Use chloroform freely." 8th. "Rupture the membranes at the margin of the placenta. If this is not feasible, perforate the placenta." 9th. "The next part of the treatment is expectant. Experience shows that flooding ceases." So long as these results remain unsurpassed by those of any other plan of treatment in the hands of different operators, were we not morally bound to accept these teachings? In large numbers (*op. cit.*) of cases, collected by Charpentier, Depaul, Simpson, Schwarz, Trask, Müller, and King, we had a maternal mortality ranging from 35 to 22.5 per cent., and in the hands of single (*op. cit.*) operators, Spiegelberg, Barnes, Hecker, Müller, and Murphy, a mortality ranging from 16 per cent. to *nil* in the cases of Müller and Murphy. It was also to be feared that harm might have been done by the vigorous defense of the tampon, and that there might be danger of going back to the old bad record. While it might, though rarely, serve a useful purpose in controlling a hemorrhage, it was a dangerous agent, and one that could nearly always be superseded by the natural and safe tampon formed by the leg and breech of the child. The speaker could not better illustrate this than by a brief reference to one of the tampon's victims : a patient was tamponed, and when the os had been dilated she was delivered of a dead baby with the forceps. The record said she had died one week after delivery of septicæmia. Another died six days after version, and presumably immediate extraction, for the autopsy showed rupture of the inferior segment of the uterus. His own record was seven cases ; all the mothers saved and three of the children. He wished to plead finally the ease of performing the operation, the necessity for action in the face of hemorrhage, and the efficiency of this natural tampon.–*N. Y. Medical Journal.*

Hydramnion ; Malformation of the Fetus.

DR. LONGAKER said that the history of the following case, with a descrip-

tion of the peculiarities presented by the fetus, was submitted in the hope of contributing something to our knowledge of a disease the pathology of which was still involved in some obscurity. On January 1, 1887, Dr. E. I. Santee had requested the speaker to see with him Mrs. R., who had supposed herself seven months advanced in her fourth pregnancy. She had always enjoyed good health. In her former pregnancies she had been delivered at term without complication. There had been no symptoms to call attention to any unusual condition until three weeks before the date of his visit. Her symptoms at that time were attributed to impending miscarriage. She complained of pain, especially in the umbilical and epigastric regions. This pain was much worse at night, so that large doses of opiates were demanded. He found her confined to bed; pulse and respiration normal; temperature subnormal, 97.5° at 4 P. M. Her abdomen was uniformly enlarged from the pubes to the ensiform cartilage, the girth at the umbilicus being 37 inches. Percussion showed resonance in the flanks, and fluctuation was quite distinct. On careful palpation, no trace of the fetus could be found. No fetal movements were noted. Nor any fetal heart-sounds. She had not felt life for four days. The uterine walls were firm and unyielding. The supra pubic region was œdematous. Examination *per vaginam* revealed the cervix intact and the os externum patulous. The internal os admitted the index finger. Immediately over this was felt the tense amnion; it conveyed the impression of the membrane during a labor pain. The diagnosis of hydramnion was concurred in, and it was concluded that, in the absence of symptoms of an urgent nature, it was best to treat the case expectantly. Three days later pains set in actively. The amount of fluid was large. It was estimated as certainly more than a gallon. Some inertia followed its discharge, for which ergot was given. The feet presented. Powerful traction was necessary, and extraction was accomplished only after the spinal column had parted. Convalescence was slow, but recovery was finally complete. The fetus, of six months and a half, was 34 ctm. long, and weighed 1,500 grms. The epidermis was macerated, and partially peeled off on the extremities. The neck was the seat of a tumor, fluctuating in the greater part of its extent, of the size of an average full term fetal head. It involved the anterior and lateral aspects, and extended from mastoid to mastoid, and, with the head in a position of moderate extension, it reached from the border of the inferior maxilla to the ensiform cartilage. The integument over the swelling was thin and almost semi-transparent. The entire head was œdematous, the swelling, however, being most marked over the frontal and facial region. Ossification of the two halves of the inferior maxilla was imperfect. On section, the pleural, pericardial, and peritoneal cavities were found moderately distended with serum of a faint red color. The heart was greatly hypertrophied. It was of fully twice the size of that of a normal fetus of a corresponding period of development. The kidneys and supra-renal capsules were normal. No abnormity was found in the remaining abdominal and thoracic organs. The stump of the umbilical cord was œdematous. The placenta could not be examined, as it had immediately been thrown away by the nurse. The spinal column was severed in the cervical region. The trachea, œsophagus, and vessels were also torn across. The head was attached to the trunk solely by the integument and

muscles of the neck on its anterior aspect. A portion of the brain-like mass of the tumor had escaped through this laceration. The large vessels passed through the mass. Dr. W. J. Haehnlen, who kindly examined the specimen, reported that it was a myxoma. There could be no doubt that in this case the excessive amount of fluid was of fetal origin. It was greatly to be regretted that the placenta could not be examined. The hypertrophy of the heart was due to the pressure exerted on the great vessels of the neck by the tumor. In like manner this had interfered with the return current of blood, and hence the œdema. The same condition must have existed throughout the entire venous system. Increased pressure existed in the umbilical vein, and hence transudation into the amniotic cavity by the capillary network of Jungbluth, which had been shown to be persistent at term in hydramnion (Lusk, "Science and Art of Midwifery," p. 288). It was also known that an increase of pressure in the umbilical vein caused a rapid transudation into the cavity of the amnion. (*op. cit.*) It was worthy of note that the kidneys were not hypertrophied, and that there was no indication of increase of functional activity in distension of the bladder. The œdematous condition of the cord might also be regarded as significant of increased pressure in the umbilical vein. This increased pressure, primarily due to embarrassment of the heart, must be regarded as the direct cause of the rapid and abnormal accumulation of fluid in the cavity of the amnion. Dr. Robert T. Wilson ("A Contribution to the History of Hydramnios," *American Journal of Obstetrics*, January, 1887), had recently given an interesting *résumé* of this subject. His case was of peculiar value, in so far as it enabled us to determine the mooted point of maternal origin in some of these cases. A careful dissection of the fetus by Professor Welch, failed to reveal any abnormity. The enormous amount of seven gallons of fluid had accumulated.

Dr. Kelly was glad that some of our countrymen had at last taken up this interesting subject in a scientific manner, pregnant as it was with important issues on other questions. The admirable paper of Dr. Wilson, of Baltimore, deserved special mention. There was no doubt concerning the correctness of Dr. Longaker's view, that the associated hydramnios had been due to the hypertrophy of the heart, which in turn had depended upon the pressure of the tumor upon the large vessels of the neck. The possibility of transudation from the cord and the placental surface under such mechanical conditions had been abundantly proved.—*N. Y. Med. Journal.*

Laparotomy for Pyosalpinx and Pelvic Abscess.

Dr. J. M. Baldy (Proceedings of the Philadelphia Obstetrical Society. *New York Medical Journal*) reports a successful laparotomy for pyosalpinx and pelvic abscess. Dr. J. Price was the operator. The tube and ovary were removed and the abscess cavity drained through the abdominal incision. In course of the discussion, Drs. Price and Longaker alluded to other cases in which they had operated for relief of puerperal pyosalpinx and of purulent peritonitis with encouraging success. J.

Treatment of Late Cases of Puerperal Infection.

Dr. Hirst (*Philadelphia Med. News*), reports four cases of late puerperal infection successfully treated by curetting the cavity of the uterus with antiseptic precautions. More or less decomposing decidua was thus removed in each case, and the temperature fell promptly.

DISEASES OF WOMEN.

Laceration of the Cervix Uteri.

DR. J. HENRY CARSTENS (*Journal American Medical Association*):

The symptoms of laceration of the cervix are usually those of some uterine disease: backache, headache, leucorrhœal discharge, bearing-down pains, etc. The symptoms vary to some degree, whether the laceration has cicatrized or not; in the latter more or less purulent discharge takes place; in the former this is not the case, and often misleads the patient and physicians in thinking there is no uterine disease.

The raw granulating surface has been called an ulcer, erosion, etc., until Emmet showed that it was a tear, and how it could be repaired. Lacerations are a frequent cause of subinvolution and displacement of the womb, the latter not subsiding until the proper treatment of the former.

The most troublesome cases are those in which no granulating surface exists, but cicatrization has taken place. Very many of these cases do not require any treatment, as no symptoms are produced. Such cases give the easy going physician a chance to say that cervical lacerations are of frequent occurrence and do not amount to much, as every woman has a tear if she has given birth to a child. Of course, this is partly true; some women have lacerations which have cicatrized and produce no symptoms, but who wants to meddle with such cases? No one ever thinks of treating or operating on cases of that kind. But when we find cases of flexions, versions, descent and enlargements, due to a subinvolution caused by a tear, no pessaries or support, no injection or application will cure the case; only an operation can. The reflex symptoms produced by cervical laceration are many: such as headaches, spinal irritations, palpitation, neuralgia, disturbances of the stomach, liver and kidneys. These do not come on shortly after the tears occur, but some years later. I believe the cicatrix gradually contracts and compresses some nerve filaments. The cicatrix is often not sensitive to the touch. During the menstrual period the symptoms are generally more marked, varying according to the complications which exist. The sympathetic symptoms and reflex disturbances produced by cervical laceration are almost innumerable, and for that reason the real cause of a woman's illness is often overlooked, and she is treated for almost every disease from acholia to zona.

We must also remember that nearly all observers have called attention to the fact that uterine cancer generally commences at a point of laceration of the cervix, and that we have a right to assume that a long continued ulcerating tear in the cervix may develop into a malignant growth. Therefore, all cases of cervical laceration which have not healed should be repaired, and those cases which have cicatrized, and produce secondary effects and reflex symptoms, should also be operated on. In my experience, many cases of repeated miscarriages are caused by tears, especially if the latter are deep. Many women anxious to have children can be made happy by an operation for laceration of the cervix. We often meet cases in which women have had a severe labor during the first confinement. The child was born dead, laceration occurred, and no other child was carried to full term, labor always occurring at the third to six month. This variety of sterility can be cured.

The operation consists in simply paring the edges, and sewing the raw sur-

faces carefully together. Considerable discussion has lately taken place on the necessity of removing all cicatricial tissue. Some have even performed a second operation when the cicatricial plug has not been thoroughly removed the first time. For the purpose of making a clean cut and getting away the cicatrix at the angle there is no better instrument than Skene's hawkbill scissors, although a knife and scissors can also be used, especially the latter. The sewing can be done with various kinds of needles which have been devised for that purpose, and with silver wire, silk, catgut, or silkworm gut. As the uterine tissue is very firm and it is difficult to get a needle to pass through, I have had Mr. Kuhlman, of Detroit, make a needle with a corkscrew curve on a short handle. This enables one to put the sutures just where he likes, and fit the raw surfaces most accurately. I have tried the various sutures. Silk prepared as proposed by Skene is

very good, but requires removal after union has taken place. Silver wire is good, but difficult to remove unless the patient is again put under an anæsthetic. When silver wire is used, I find it the best plan to put four or five perforated shot on the wire, and compress the last one only. This enables one to remove the wire readily by simply cutting it between the last two shot, pulling all the shot off the wire and grasping the long ends of the latter, simply pulling them out. Catgut is very good, and need not be removed; which is a great advantage. Still, catgut is often unreliable, and is very difficult to tie so that it will hold. I have therefore lately tried silk worm gut, and find it most excellent, if a large size be used and kept thoroughly aseptic. It need not be removed, although it takes a long time to become absorbed. If the circular artery be cut it may be necessary in some cases to ligate it, but generally the sutures will stop the hæmorrhage.

The operation for laceration of the cervix is therefore very simple: Cut out a wedge-shaped piece, and remove all cicatricial tissue; carefully adjust the raw surfaces with silkworm gut sutures. I believe in chloroform as an anæsthetic.

After the operation the patient is kept in bed for a week. Use carbolized douches twice a day; but this is not necessary, as I have often paid no attention to the patients except to see that no inflammation developed, and then examined them in five or six days and if union was perfect, allow them to sit up; in a few days they would follow their ordinary vocation.

The operation is not dangerous unless chronic or subacute peritonitis or cellulitis exist, when no operation should be attempted until after all symptoms have disappeared; and even then great care is needed, as the uterus must be very carefully handled and not much traction made. In these cases, also, the after treatment must be more strict; the patient must be kept quiet and on a light diet; in ordinary cases I allow a full diet.

My conclusions are:

1. All lacerations which have not cicatrized should be repaired, even if no severe symptoms are produced, as

they might be the starting point of cancer.

2. All cases which have cicatrized and cause sequelæ, such as subinvolution, displacements, with the various reflex symptoms, should also be operated on, great care being taken in these cases to remove all cicatricial tissues.

3. The wedge-shaped piece can be removed with a knife or a scissors, the latter to be preferred.

4. Silkworm gut or catgut is to be preferred, although silk or silver wire may be used.

Electrolysis in the Treatment of Fibroid Tumor of the Uterus.

At a meeting of the Chicago Medical Society, Dr. FRANKLIN H. MARTIN considered the above subject under the following heads :

1. Consideration of the tumor.
2. Means of generating the current.
3. Electrodes, connections and other apparatus.
4. Electrolytic action of the current
5. Cataphoric action of the continuous current.
6. The difference in the local action of the two poles with powerful currents.
7. Operation and details of application, with a description of Apostoli's method.

The battery used should be one capable of generating a continuous strength of 200 milliamperes. The use of such a strong current is made practicable by improvements in electrodes and conduction. Apostoli overcame the pain caused by high tension currents by using as a surface electrode a thick paste of potter's clay spread upon the abdomen, with proper connections from a plate of soft metal upon its free surface. This electrode has the objection of being inelegant. Dr. Martin presented a decided innovation in the way of a surface electrode. From a soft plate of metal the margins of which are bent so as to form a concavity upon one surface of an inch in depth, he has constructed an electrode by stretching loose over the cavity an animal membrane, making the surface between the metal and the membrane water-tight. Through a stopper in the metal surface the inter-surface is filled with a warm saturated solution of chloride of sodium. This contrivance presents all the advantages of the potter's clay electrode of Apostoli. The internal electrodes include a uterine sound of platinum with the intra-vaginal portion insulated, a sharp probe of platinum and iridium with insulating sheath and a number of needles insulated with hard rubber to within an inch of the point. The cataphoric action of the current was described, and to it the author ascribed considerable prominence as aiding absorption of the fibroid growths.

The author offered the following conclusions :

1. A means of generating a continuous current of electricity, which can be increased from 10 to 250 milliampere strength, is necessary in order to obtain all the effects of the electrolytic treatment of fibroid tumors of the uterus.

2. The most distressing hemorrhages from fibroid tumors can be healed by the local coagulating effect of the positive pole if applied intra-uterine.

3. The intra-uterine electrode when positive should be of unattachable metal and should conform as nearly as possible to the size and shape of the uterine canal, and have the intra-vaginal portion insulated.

4. When the cervical canal cannot be entered a negative galvano-puncture should be made into the presenting part of the obstructing mass of the tumor and an artificial channel created which

is to take the place of the impenetrable uterine canal in all subsequent treatments.

5. The intra-uterine electrode should in all cases be negative, unless there is hemorrhage or excessive leucorrhœa, when the positive pole is required.

6. The strength of the current should be the the strongest possible consistent with the desired therapeutic effect and the toleration of the patient.

7. Cases of intolerance of the high doses arrange themselves under the three following heads: 1, acute hysteria; 2, acute enteritis; 3 acute metritis, peri or para-metritis. The most tolerant are the deep uterine and profuse hemorrhagic.

8. The ordinary duration of the *séance* should be about eight minutes.

9. The number of operations are necessarily dependent upon and influenced by the result to be accomplished. A severe hemorrhage can be checked in from four to five treatments, while a general reduction of the tumor necessitates many, varied, of course, according to the size and location of the tumor. In many cases simply a restoration to health, and a relief from the prominent and annoying symptoms, must be accepted as the substitute for actual cure.

10. The time for commencing treatment matters little if the tumor is not rapidly growing and no excessive hemorrhage is present. The operation should be intramenstrual, if possible, but if hemorrhage is continuous operate during the flow.

11. Extra uterine puncture should be regarded only as a last resort, but every means of reaching the tumor through the uterus being impracticable, seek, if possible, to make the operation extra-peritoneal; should this in turn prove equally undesirable, use as a final alternative the abdominal puncture.

12. In this treatment strict antiseptic precautions should be carried out as in all others.—*Cinn. Lancet-Clinic.*

The Pathology of Chronic Inflammatory Diseases of the Uterine Appendages.

During the year 1886, Mr. TAIT operated on 63 patients with the result of only one death. We have before us some of the deductions obtained from this work (*Brit. Med. Jour.*), which are worthy of notice. The etiology of these affections are beginning to be clearly understood. Mr. Tait lays down four lines on which the causation of the diseases in the cases observed by him, rested: first the simple catarrhal; second, that which can be clearly traced to the influence of exanthemic disease occurring at the period of puberty; third, gonorrheal infection; fourth, the occurrence of inflammatory mischief in the pelvis in the post-puerperal condition, either following miscarriage or full term labor. Mr. Tait also inclines to the belief that there is a distinct group of cases in which the only explanation available of the occurrence of chronic inflammatory trouble in the uterine appendages was the existence of an infantile condition of the uterus due to arrested development.

The preponderating influence of the third and fourth causes is fully illustrated by Mr. Tait's experience. Out of 63 cases there were 10 unmarried women, and out of these 10 single women there could be no doubt that in at least three of the cases the origin of inflammatory trouble was gonorrheal. In two others of these single women there had been pregnancies. In four only could Mr. Tait draw no conclusions as to the cause of disease, though in two cases he was inclined to regard the condition as due to scarlet fever.

Of the 53 women who were married, 23 had never been pregnant, although married on the average ten years. Sixteen had been pregnant only once, the pregnancy occurring immediately after marriage and being associated in every case with subsequent pelvic trouble.

Only 14 cases had had more than one child and between the last pregnancy and the time of operation was an average of 6 years. These facts prove very conclusively the influence of chronic inflammatory disease of the uterine appendages in the production of sterility. In every one of Mr. Tait's cases the condition of the appendages was such that the patients could not by any possibility become pregnant. The tubes were either occluded or so adherent to the ovary or adjacant tissues as to destroy their function in connection with the process of ovulation.

In the group of 23 women married for an average period of ten years without becoming pregnant, Mr. Tait observes that in one-third of these cases the disease arose from old gonorrheas or gleets in their husbands, excited into activity by the indulgence of early married life. In rather more than one-third of this same class he believed the disease originated in the exanthematic diseases of girlhood, more especially scarlet fever. In the second group of 15 women all of whom had been pregnant once only, pelvic peritonitis following their only labor was the cause of subsequent trouble. In the third group of 14 women whose fecundity was not limited to one child, in 8 cases acute gonorrheal salpingitis was the origin of the trouble.—*Md. Medical Journal.*

Canalization and Catheterization of the Fallopian Tube.

Diseases of the Fallopian tubes were but recently looked upon as pathological luxuries "of little clinical importance." Within the last few years it has been shown that inflammation and obstruction of the tube is a disease by no means infrequent, and that papilloma of the same structure, though very rare, may occur as a distinct affection with marked symptoms. Hence, certain observers are at once turning their attention to an old question—the canalization and catheterization of the tube.

In the thirtieth volume of the *Archiv fur Gynakologie*, Dr. GONNER, of Basle, describes two cases of high interest. In removing some diseased endometrium by means of a curette from a young woman who had aborted three months previously, he found that the curette could be made to pass till it touched the fundus uteri and could then be turned to the left and pushed onwards, without the employment of the least force, until eight inches of its shank had passed above the os externum. The instrument was removed and once more passed in the same direction without difficulty. No bad results followed and the patient was in good health; six weeks later involution of the uterus was found to be complete. Dr. Gonner about the same time examined another young patient a month after delivery. The forefinger could be passed for an inch into the uterus in order to guide the sound, which touched the fundus at a distance of four inches from the os externum. On careful and gentle manipulation, the sound could be passed to the right for seven inches beyond the os. The point could be felt entering into a cavity. Another physician, without having heard the results of Dr. Gonner's exploration, passed the sound as far in the same direction on the following day. The left tube could not be sounded. The curette was introduced and a piece of retained placenta

was removed; that instrument could not be passed into either tube. On the tenth day after the removal of the placental relics, the patient was suddenly seized with pain in the right side of the hypogastrium when attempting to sit up in bed. The temperature rose to 103.8° F., the pulse was weak, the hands cold, the abdomen very swollen and tender. There was resistence in the hypogastrium to the right, and dulness up to the umbilicus. The area of dulness became distinctly circumscribed two days later; it then extended much higher on the right than on the left side. The patient recovered slowly and left the hospital two months later. Professor Bischoff believed that tubo-uterine gestation existed, since it appeared that part of the placenta lay in the dilated uterine end of the tube. Dr. Gonner admits the possibility that in one or both of his cases the uterine walls may have been perforated, but, he adds, the careful guiding of the instrument from the fundus and thence laterally without any force seemed rather to indicate that it really entered the Fallopian tube.

Dr. Tyler, in 1849, advocated catheterization of the tube for the cure of sterility, and Frankenhauser, later on, recommended the same for the removal of morbid contents. In 1872, Bischoff passed a sound six inches and a half beyond the os externum in a patient with cystic tumor of the ovary. The patient died a few days after ovariotomy. Dextroversion and flexion of the uterus were discovered at the necropsy. The highest point of the uterus was the part where the left tube arose ; a sound could readily be passed into that tube. Dr. Matthews Duncan, who insists on the physiological canalization of the tube for the transmission of the fecundated ovum, describes in the appendix to his *Clinical Lectures* a very similar case. He passed the sound far beyond the right side of the uterine cavity before ovariotomy. The patient died, and the right tube was observed lying in the route which the sound had taken, and its uterine extremity was patent and wide enough to transmit a common surgical probe. The same obstetrician declares in his *Practical Treatise on Perimetritis and Parametritis* that, in one of his cases of "encysted serous perimetritis," he could easily pass the sound through the left Fallopian tube into the peritoneal cavity. — *British Med. Journal.—Obstetric Gazette.*

Diabetic Plaques of the Vulva.

M. BESNIER has called attention to an affection of the vulvar mucous membranes which has not hitherto received the consideration which it deserves. It is characterized by the appearance at divers points of the vulvar mucosa of whitish plaques which seem to be exactly analogous to those patches of the mouth and tongue called psoriasis, or leucoplakia. This affection of the vulva occurs most frequently during the course of glycosuria, though it frequently follows or is coincident with uterine affections. In the former case the plaques usually disappear when the sugar is eliminated from the urine, but in both cases the plaques are liable to be transformed into epitheliomata—which is another point of resemblance between the vulvar and buccal affection. Besnier recommends (in the *Journal de Médecine et de Chirurgie Pratiques*) that these plaques should be treated locally, by alkaline injections or lotions carefully made after each urination and by the application of pomades. —*St. Louis Medical and Surgical Jour.*

Amenorrhea Treated by Foreign Bodies.

Amenorrhea and scanty menstruation have been treated by so many different

methods and drugs, and with such uniformly poor success, that any procedure which promises even the partial success met with by Dr. Braithwaite, will be welcomed by the profession as extremely valuable. The plan recommended by Dr. Braithwaite, and which was suggested to him by the effect upon the uterus of uterine polypi, consists of the introduction into the cavity of that organ of small foreign bodies, with the hope of stimulating the scant menstrual flow. The foreign bodies made use of until recently, however, failed to answer a good purpose, as they were expelled before they had accomplished their end.

Since the adoption of the Greenhalgh rubber stem, much better success has attended his efforts, although failures are not infrequent. The stem is carefully rendered aseptic, and about a week before menstruation is introduced and left in position. A hemorrhage generally results in a few days, and if not the stem should be left in position. He considers this, of all the methods he has tried, the most likely to give good results. Although the plan has features which would appall physicians of many years ago, the *rationale* is evident, and no doubt will continue as a recognized procedure.—*Weekly Medical Record.*

Treatment of Constipation Associated With Uterine Disease.

French gynæcologists use the following formulæ in intestinal paresis with faulty secretion of the intestinal mucosa: ℞. Extr. of physostigma; extr. of belladonna; extr. of nux vomica, āā gr. v. Make twelve pills, 1 to be taken on rising from bed.

In hemorrhoids: ℞. Sulphur washed and sublimed, ʒ i; pulverized senna, ʒ ss; essence of citron, gtt. v.; simple syrup, q. s. M. S.—2–3 teaspoonfuls at a dose.

Huchard employs the following mixture: ℞. English magnesia, ʒ vi; cream of tartar, ʒ iii; bicarb. soda, gr. xxx; oleo-saccharate of anise, gr. xv. M. Make forty powders. S.—1 before each meal.

Very efficient is the following combination of cascara sagrada: ℞. Cascara sagrada, powdered, gr. iv; extr. of bellad., gr. ⅛; lycopodium, gr. 1½.—*Gazette de Gynécologie.*

For Dysmenorrhœa.

℞. Extr. caulophyl. thal.; extr. senec. aur.; extr. vibrun. prun., āā f. ʒ iii; elix. simpl., q. s. ad f. ℥ vi. M. S.—f. ʒ i t. d., commencing ten days before the expected period.

Semi-Natural or Digital (Volsella) Forceps.

Dr. H. V. Sweringen writes to the *Medical and Surgical Reporter*, as follows:

It is wonderful to what a state of perfection the sense of digital touch alone can be educated, in the various vaginal and uterine manipulations. Take for example, the introduction of tents into the cervix. In addition to the inconvenience of the necessity of an assistant to retract the perineum with Sims' speculum, there exists the difficulty in fixing the os uteri in a manner sufficiently immovable to resist the force necessary for their introduction, the entire womb invariably being pushed up by the tent without entering the cervix to any great extent. It is true that we have the volsella forceps, by which through the speculum—and by the way, the blades or bill of our specula are too long for this purpose—and the aid of sight, we can seize either lip of the cervix and hold it more or less firmly until we can more or less perfectly introduce the tent, necessitating the traction of the entire uterus

almost if not quite to the vulva. In not a few instances the cervix has thus been torn and lacerated considerably, offering numerous puncta or sites for the ingress of septic germs.

It consists simply in two rings, bands, or thimbles, armed with teeth similar to those of the volsella forceps, which are slipped over the ends of the index and middle finger of the left hand and properly secured or fastened by tape or rubber bands around the wrist, the teeth in each being approximated relatively to each other so as to form simply a pair of forceps, the fingers themselves constituting the handles thereof. It will be seen at a glance how great is the advantage of this simple contrivance under certain circumstances—how firmly the cervix can be held at less risk of laceration than by the old method, how readily we can detect any deviation of the course of the canal, how little traction is necessary, and how independent of assistant and speculum we can be in the introduction of tents, relying entirely upon the sense of touch. The work can often be done with but a single thimble thus armed, the remaining three fingers being free to steady the parts or exercise the function of touch, so important in all procedures of this character.

The value of this contrivance, so readily carried in the pocket, in cases of abortion, in which the membranes or some part of the fetus is presenting at the os externum, but insufficient for an ordinary finger grasp, is also apparent.

Vicarious Menstruation Cured with Permanganate of Potash.

Dr. F. W. Samuels, (*Southwestern Med. Gazette*):

In March, 1887, I was sent to see Miss S., a robust and healthy looking girl of about eighteen years of age. I could see she was suffering more or less from dyspnœa, but the seizure resembled a fit more than true dyspnœa. I quickly raised her to the sitting posture, when suddenly a slight gush of blood came from her mouth, which relieved her present distressing symptoms. For some time afterwards she continued to spit blood, and had a hacking cough. A few sups of cold water relieved her very much.

About eleven months ago she was caught in the rain the eve before her catamenia. The temperature fell quite rapidly, and being some distance from her home she was severely chilled. The next evening came, and there was no sign of menstruation, and she had pain in her back and pelvis. A physician ordered hot hip baths, and some pills, but not until the tenth day did any flow come. At the following periods she suffered in like manner. But not until the last five periods has she had the dyspnœa and spitting of blood.

At first I concluded that I had that "Protean female infirmity," hysteria, to deal with. The flow of blood, and the relief it afforded, altered my diagnosis, and I began to inquire into the family history for phthisis, but failed to find any trace of that trouble. It was not until repeated examinations were made that I was satisfied that her lungs were normal, and that this was a case of vicarious menstruation.

I ordered permanganate of potash in 2 gr. doses every six hours. When I saw her the next A. M.; three doses had been taken, but without any effect. As there was no gastric irritation, I ordered the same doses to be repeated, and an anodyne cough mixture to allay the distressing cough. I returned the next A. M., and her courses were all right, and she was entirely relieved of all her trouble. About five days before the

next time to become unwell, I was sent for, and found her complaining of headache and dizziness, and a slight increase in temperature. I prescribed the permanganate in 2 grain doses three times a day for the next four days. I met her two weeks afterwards, when she told me that she had had a normal menstruation, and considered herself entirely well. I asked her to continue her medicine once more, and to let me know if anything went wrong.

A Choice Lubricant for the Speculum.

BRONDEL commends the following antiseptic lubricant for the vaginal speculum: ℞. Boracic acid; essence of eucalyptus, āā 10 parts; vaseline, 100 parts.— *World's Medical Review.*

DISEASES OF CHILDREN.

Green Diarrhea in Children; its Treatment with Lactic Acid and its Microbe.

The Paris letter to the *N. Y. Medical Journal*, of June 2, 1887, contains the following:

Professor HAYEM, who holds the chair of therapeutics at the Paris faculty, has a children's service at the St. Antoine, and there his attention was lately directed to the frequency and gravity of gastro-intestinal troubles among the little patients, for which he at first tried all the various remedies usually recommended, but without much success. He then began the use of lactic acid, and noticed that it was often followed by great benefit, but that when it was discontinued the trouble would return in some patients, and that with others, after producing the happiest results, it would suddenly cease to be of use. It was then observed that, when several children were attacked with green diarrhea in the service, a sort of epidemic of it would break out among the greater portion of the children. Struck with the frequent repetition of this occurrence, M. Hayem began to look upon the disease as infectious, and he gave orders that strict antiseptic measures should be adopted —all the affected infants' soiled linen was to be taken from the ward at once and plunged into a large tub containing a ten per cent. solution of corrosive sublimate. Soon after the adoption of this system, the green diarrhea disappeared entirely from the wards, and has not returned. In the use of lactic acid, a teaspoonful of a two per cent. solution was given to the infant a quarter of an hour after nursing, from five to eight teaspoonfuls being given in the course of twenty-four hours. Under this treatment, all vomiting ceased, the passages diminished in number, their greenish color turned to yellow, and a cure generally resulted in from three to five days. M. Lesage, M. Hayem's interne, then undertook a series of investigations to ascertain the cause of these troubles, and he found a certain form of bacillus agglomerated in large masses in the stools, that explained the infectiousness. M. Hayem thinks that this microbe penetrates into the stomach with the food in the ordinary way, but does not find a favorable place for its pullulation unless the gastric secretions are altered as the accompaniment of the dyspepsia, when the bacilli can pass on into the intestine without having lost their vegetative power; once in the intestine, they find a neutral or alkaline medium in which they can go on in their development. The lactic acid probably acts by increasing the acidity of the gastric juice, enough at least to produce sterilization of the germs of the bacilli; hydrochloric acid did not act so well. Probably there are other substances, such as naphthaline, iodoform,

calomel, etc., that may serve as well as disinfectants or to neutralize the microbes. Professor Damaschino, through his former interne, M. Clado, professes to have discovered this special microbe some two years ago, and says that it was afterwards spoken of and experimented upon in America, but M. Hayem says that nothing more was done about it, and that he did not know of these facts. M. Lesage has gone farther, and has shown that this microbe causes green diarrhea in children, as its introduction into the digestive tract proves.

The Bronchial Catarrh of Children.

CARMICHAEL'S views (*Edinburgh Med. Jour.*) on pathology and symptomatology do not differ essentially from those generally held on this subject. His treatment deserves to be noted, as he speaks from a large experience. Moisture in the air of the room is an important thing, especially in cases of a severe type. This is most easily obtained by hanging wet towels about the bed upon a cord. It has none of the disagreeable features of the steaming by a kettle, and is quite as efficient. Alcoholic stimulants are not to be too readily or too frequently used. They are necessary, generally, only in prolonged and unusually severe cases, the effects being carefully watched. Moderate counter-irritation to the chest should be kept up by stimulating liniments, or by the occasional use of mustard cataplasms. Poultices in general are to be rejected on account of the inherent difficulties connected with their proper preparation and application. Much to be preferred for common use are the oil silk and cotton-wool jackets. When the cotton is wrung out of warm water before application, the best sort of poultice is obtained. Emetics may be used to empty the tubes under the following circumstances only: A constant, dry cough, deficient secretion, high fever, strong pulse, and deficient action of the skin. The routine use of expectorant mixtures—such as those of squills, ipecac, etc. — is strongly deprecated.

In the early stages, when the temperature is elevated, antimony, apomorphine, or ipecac may be used. Afterward saline expectorants are the most valuable — the alkaline carbonates, citrate of potassium, and iodide of sodium. In the more chronic cases the author gives a high place to turpentine compounds, particularly terebene and eucalyptus. The former may be used with great advantage in acute cases, where the dryness of the mucous membrane and spasm are present. The latter is best used by inhalation.—*N. Y. Medical Journal.*

Intussusception Treated with Inflation and Massage.

CHEADLE (*Lancet*), reports three successful cases. A boy of five months began on July 4th to have constipation and vomiting; the bowels were moved on the 8th by magnesia, and again on the 10th by some other cathartic. On the 11th screaming pains began, with persistent vomiting and great restlessness. On the next day he passed blood and was then admitted to the hospital. The characteristic sausage shaped tumor was present in the umbilical region and extended toward the left side. The rectum was empty. A small quantity of water only could be injected, so that air was substituted, retained by pressing the anal folds tightly together over the tube. The abdomen was kneaded gently at the same time. In a few minutes the tumor was gone. It recurred in the right hypochondriac region a few hours later; the injection of air and massage

were repeated under chloroform and the tumor rapidly disappeared. Four hours later a natural movement from the bowels occurred, and the patient made a complete recovery. Two other similar cases are reported with equally good results. Elliott (*Lancet*) adds another case which was finally cured, although two relapses occurred on the fifth and twenty-fifth days respectively. The same method was employed as by Cheadle.—*Ibid.*

Treatment of Cholera Infantum in the Bellevue Hospital and the New York German Dispensary.

Dr. A. Jacobi (*Medical News*) treats the cases which come into his ward, as follows:

Internal Medication.—Empty the stomach and bowels of fermenting masses. For this purpose castor oil answers well. A dose of calomel (grs. j—vj) answers better, because it acts as an anti-fermentative, beside being a purgative.

Neutralise acids (fat acids) in the stomach. Carbonate or phosphate of calcium, grs. j-ij, every one to two hours, acts as an adjuvant to other treatment. Bismuth also answers this indication, besides being an anti-fermentative. Dose, grs. ss-ij every one to two hours. May (must) be combined with opium, Dover's powder, grs. 1–10, 1–5 or 1–3, every one, two or four hours. No salts of magnesium or sodium, because they add to the diarrhea in these acute cases. Avoid syrups to correct the taste of medicines. They will turn sour. Prefer glycerine.

Anti-fermentatives. — Calomel, bismuth, alcohol, creosote, salicylate of sodium, and resorcin have been recommended for their anti-fermentative effect. Of the two latter, I prefer resorcin, iv-x grains a day, in solution, (suspension), or as a constitutent of powders (with bismuth, chalk, opium).

Sedatives.—Opium diminishes hyperæsthesia, hyperperistalsis, and hypersecretion. Dover's powder (gr. 1–10 to $\frac{1}{3}$ every two to three hours) acts very well though some writers object to it, and is indispensable. Does well with bismuth, and prepared chalk, with or without resorcin.

Astringents.—In acute cases, and when the stomach participates in the process, lead, tannin, gallic acid, alum, etc., are badly borne. In chronic protracted cases they will find their indication. Nitrate of silver does better in many acute cases, gr. 1–50 to 1–30 in 2 drams of distilled water (dark bottle) every two hours. Creosote water in chronic cases.

Stimulants.—Alcohol may be added to food. Bad brandy or whiskey contains fusel oil, which is a paralyzing agent. Whiskey is therefore preferable with us, because it can be obtained in greater purity for less money. (See under "Food.") Never give it raw. Camphor is better borne than ammonia. It is easily taken when simply rubbed up with glycerine suspended in mucilage (gr. $\frac{1}{4}$—i-ij every one or two hours). The strongest nerve stimulant of all is Siberian musk. Give in urgent cases of collapse gr. i-ij every fifteen or thirty minutes (best suspended in mucilage) until six or twelve grains have been taken. A very good stimulant in collapse is the injection into the bowels through a long flexible tube (catheter No. 12) of hot water with some alcohol, and one or a few drops of tincture of opium.

External Applications and Hygiene.—In acute cases with high temperature applications of water of 60°–70° to abdomen. Where much pain and with anæmic children, warm applications

do better. Frequent injections of water of 100° F. answer well in most cases, not done in rectal catarrh. In collapse of great debility, the water ought to be from 105° to 112° F., and contain some alcohol and opium. Part of this water will be absorbed, fill the blood vessels, and may prevent intracranial and other thromboses. The addition of gum Arabic to the injection or the use of glutinous decoctions (flax seed) instead of water is quite satisfactory. Open doors and windows in hot weather. Select the coolest place in the neighborhood for the patient, day and night. Night air is better than no air. Country air, sea air, better than city air, particularly at some altitude. When the body is warm and the weather hot, wash the body with cool water, or alcohol and water (1:5) frequently. Cold feet must be warmed artificially.

Food.—No raw milk, no boiled milk, no milk admixture at all, in bad cases. In vomiting and severe diarrhea, total abstinence for from one to six hours. Afterward teaspoon doses of a mucilaginous or farinaceous decoction. Regular food: 5 ounces of barley water, 1–2 dram of brandy or whiskey, the white of an egg, salt and sugar, teaspoonful every five or fifteen minutes, according to age and case. May be mixed with mutton broth, which, with white of egg etc., is better than beef soup or beef tea in convalesence. Abstinence better for vomiting than ice; the latter may quiet the stomach, feel pleasant, but stimulates peristalsis. Avoid beef tea. If it be given in convalescence, mix it with barley water.

Toward the end of the disease, or when the discharges are many and copious, and inspissation of blood, and thromboses (hydroencephaloid) threatening, the common sense of the practitioner will introduce liquid into the circulation as best he can. No written rule ever supplies or substitutes brains.

At the New York German Dispensary Dr. AUGUSTUS CAILLÉ varies the treatment with the period at which the child comes under observation. Inasmuch as a simple dyspeptic diarrhea may develop into the most violent choleraic diarrhea through the agency of high temperature and improper feeding, it will be well to consider briefly the prophylaxis of cholera infantum—*i. e.*, the treatment of gastric catarrh, with tendency to diarrhea. The diet of the sick child must be at once restricted. Food should be withheld for a period of from six to twelve hours, and water given *ad libitum* also oatmeal, barley, toast water and lime water. Nursing babies can be deprived of the breast for the same length of time.

The bowels should be evacuated by means of castor oil, magnesia cum rheo, or calomel gr. ½, sugar gr. v, pro dosi, given every hour until five are taken. It is best to place the powder dry upon the tongue. If the tongue remains coated twenty-four hours after the administration of calomel, etc., dilute hydrochloric acid, with or without pepsin is indicated. ℞. Acid. muriat, dil. gtt. xl.; aquæ ℥ ijss; pepsini pur. ʒ ss; syrupi simp. ʒ iv. M. Sig.—Teaspoonful every hour.

℞. Acid. muriat. dil., ʒ ss; aquæ, ʒ xiv; tincture opii, gtt. ij; syrupi simp., ℥ ij. M. Sig.—Teaspoonful every two hours.

In acid dyspepsia, alkalies (mist. cretæ) are indicated.

In order to save time and prevent misunderstanding, Dr. Caillé has found it a good plan to have a diet card printed, which he presents to the parents, telling them to give to the sick child the articles of diet which are not crossed out. The following are enumerated:

Barley-water, oatmeal-water, white of egg in water, gum arabic in water, lime-water, whiskey in water, bread crust boiled in water and allowed to cool, milk with any of the above waters, meat broth with any of the above waters, cold tea.

The acute attack (cholera infantum) calls for the following treatment :

1. Anti-fermentative (antiseptic) measures.

2. Rest for the intestinal tract.

3. Stimulation and prevention of collapse.

If a child is seen early, before collapse has set in, it should be kept as quiet as possible, and no food given for six to ten hours, on account of irritability of stomach. Pounded ice, with or without whiskey, cold tea, ice tied in a rag to be held in the mouth, are advisable ; also lime-water toast-water, rice-water.

To meet indications 1 and 2 he relies upon the following drugs : ℞ Bismuth subcarb., ʒ j ; aquæ cinnam., ℥ ij ; tinct. opii, gtts. ij. M. Sig.—Teaspoonful every one to two hours.

Or, ℞. Sodii benzoatis, ʒ j ; aquæ, ʒ xiv ; syrupi, ℥ ij. M. Sig.—Teaspoonful every two hours.

Or, ℞. Acid. carbol. pur., gtt. ij ad vj; mucilaginis, ℥ ij. M. Sig.—Teaspoonful every two hours.

Or, ℞. Argenti nitratis, gr. ij ; aquæ destil, ℥ ij. M. Sig.—Teaspoonful every two hours.

Or, ℞. Resorcin, gr. ij ; aquæ cinnamoni, ℥ ij ; tinct. opii, gr. ij. Sig.—Teaspoonful every two hours.

He avoids the addition of syrup to a mixture, if possible, and omits the opium if the patient apparently has little pain.

When children are very restless, and show by their actions that they suffer pain, he does not hesitate to give small doses of opium, one, two, or three drops in a two ounce mixture.

A towel wrung out of cold water and secured over the abdomen, appears to relieve pain ; and a warm mustard bath stimulates in impending collapse.

For obstinate vomiting he frequently gives : ℞. Tr. iodin. gtt. xv., aquæ menthæ ʒ j. S.—15 ♏ every hour.

A change of air is of the utmost importance. Children taken from a hot tenement to the seashore, or any cool shady place, improve perceptibly in a short time, if not too far collapsed.

Large enemata of tepid water, with or without the addition of some antiseptic drug (acid. salicyl.), should be tried in obstinate cases, but in dispensary practice this cannot well be carried out.

Stimulation must not be delayed until symptoms of collapse are marked. Young children with high temperature, cold and clammy feet and hands, and a pulse too rapid to be counted, are frequently stimulated in vain. The best stimulants, in his experience are : ℞. Camphoræ gr. ¼ sacchar gr. vj. Every three hours. ℞. Camphoræ gr. ¼ pulv. doveri gr. 1–10. Every two hours. ℞. Camphoræ gr. j., bismuthi gr. vj. Every two hours.

If the children vomit the drug, it will be necessary to give camphor in ether, or camphor, caffeine, and ether hypodermatically.

In the dispensary practice children cannot be seen oftener than once every other day, or every day at the utmost; it is, therefore, a good plan to prescribe anti-fermentative medicine and camphor powders at one consultation, and direct the parent to give the powder after the medicine has been taken.

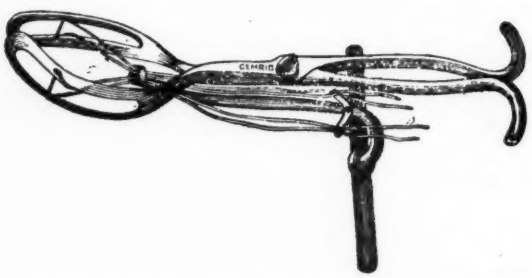
During the period of reconvalescence astringents are indicated to combat the intestinal catarrh, such as tannic acid, acetate of lead, with or without opium. To guard against relapse, it is of the utmost importance to select the proper

food for children deprived of the breast. In the majority of cases milk and oatmeal or barley gruel, in different proportions according to age, with a pinch of salt, some sugar, and, if necessary, lime-water, will be the proper food for a child up to twelve months. This food has been recommended by Professor A. Jacobi for the past twenty-five years. If it fails others should be tried. Dr. Caillé has had good results from the employment of the so called "peptogenic milk powder."

OBSTETRICS.

Axis-Traction Forceps.

Dr. B. C. Hirst exhibited the forceps of von Hecker, used in the Frauenklinik at Munich. The Poullet attachment had been added to the original forceps.



Dr. Longaker remarked that the idea of making traction by means of tapes attached through perforations of the blades, was suggested by Chassaigny, of Lyons, as early as 1865.

Dr. Kelly was pleased with the forceps of von Hecker, and considered it better adapted to the Poullet tractor than the Hodge or any straight forceps. The very fact of attempting to use a long, straight forceps, was an attempt to realize thus, in some measure an axis traction (according to the present use of the term, which meant a direct pull). The Poullet forceps which Dr. Kelly had previously exhibited, was not, as stated by Dr. Longaker, a modified Chassaigny, but combined ideas developed by Hubert, of Louvain, and Chassaigny. The former had shown the necessity of pulling in the axis of the pelvis to make a traction which would be at the same time effective and non-injurious to the mother, while Chassaigny had drawn special attention to the importance of grasping the child's head in such a way that the pull came as nearly as possible in the centre of the figure of the child's head. The speaker had, within a week, used the Poullet forceps in the following interesting case: Mrs. K. had a justo-minor pelvis. She had been delivered about two years before by her present physician, a skilled accoucheur, of an average child with the forceps. This time, however, the physician had made long unsuccessful attempts with a long Simpson forceps, when he called the speaker, declaring that the head was locked at the brim, and that it was utterly useless to try to move it with any ordinary instrument. At his request the speaker applied his Poullet-Levret forceps with the woman lying on her back. The Levret blades were simply adjusted to the head, which was engaged at the brim, completely flexed. The first few tractions on the bar seemed to make slight but distinct progress. The head under the following traction efforts, moved steadily, slowly, and quietly down the axis of the pelvis, rotating, and

although large, emerged at the outlet. No fixation lock or screw was used to compress the head. It took a long time to release the body, but finally a male weighing 13½ pounds, measuring 60 ctm. in length, and with a head 47½ x 37 ctm. in its largest circumference, was extracted. The child was profoundly asphyxiated, but revived under syringing and douching. This case was but a type of many, some of which he had announced to the society, in which the Poullet-Levret forceps had done him such excellent service. He now used no other instrument.—*N. Y. Med. Journal.*

Remarks on Antiseptic Midwifery.

DR. GUSTAV ZINKE, M.D., (*Cin. Lancet-Clinic.*): Antiseptic midwifery is now an acknowledged and well recognized necessity, by every intelligent practitioner who is willing to take the pains to study and observe its effects. This point, however, need not be discussed. The questions at issue simply are:

1. To what extent, and in what manner, should antisepsis be carried out?

2. Which antiseptic drug is the best to prevent the formation, accumulation, or proliferation of the septic material, and is at the same time, free from danger to the mother?

To determine this, it is necessary to consult, not only our own, but the collective experience of the whole professional world. And what do we find?

(*a*) Not one of the germicides employed for this purpose is used in such potency as to produce the death of any germ in a short time. If they were, injury would be inflicted upon the woman.

(*b*) Bichloride of mercury solution (1:8000) is looked upon by many as the only sure and reliable antiseptic, but all admit that carbolic acid, boracic acid, permanganate of potash, etc., will answer as well; and that the vital principle of antisepsis in all respects, is simply cleanliness and intelligent care.

(*c*) Some assert that:	Others say:
1. Instruments before employment should be imbedded in antiseptic solution. Take a bath yourself. Change your clothes; wash hands antiseptically before approaching a woman in labor if you have been in contact with acute infectious disease.	1. All you need to do is, "Keep instruments clean." Not necessary to take bath, or change your clothes. Wash your hands clean with soap, and remove all dirt from below the nails.
2. Wash a woman antiseptically; have the bed, the room, the whole house thoroughly cleansed.	2. Will depend upon circumstances. Ordinarily this is not necessary.
3. Use carbolic, boracic, or other antiseptic ointment in examinations.	3. Vaseline, fresh lard, or sweet-oil, will do as well.
4. Wash out, in every case, the vagina antiseptically, prior, sometimes during, and always after labor; some even suggest:	4. This is going too far. Injection may do harm. Wash the external genitalia, observe cleanliness and comfort of patient and do not meddle with vaginal, (5) much less uterine irrigation, unless they are demanded by serious complication.
5. The propriety of irrigating the uterus in every case.	

Since it is impossible to kill these germs, with the various antiseptic solutions as ordinarily employed, unless they remain for hours immersed within any of these fluids, surely they only accomplish their object by rendering the part clean; and who can deny that cleanliness cannot be obtained without the presenee of a small quantity of bichloric mercury, carbolic acid, or any other drug. For these reasons, those who advocate thorough cleanliness only, certainly have the better of the argument; and it will make no difference how or what with, the patient, her bed and surroundings are washed or sprayed; or what the doctor or nurse may wear, whether the instruments have been imbedded in antiseptic fluid or not, whether vaseline or carbolic ointment is used so that all which is brought in contact

with the patient is clean and free from irritating substances.

In my opinion, as far as the physician and his instruments are concerned, the daily, ordinary, bodily ablutions, and the free use of soap and hot water upon his instruments, immediately prior to, and after their employment, is sufficient to insure perfect safety. This statement will be challenged, I know, but I maintain that he who understands how to keep himself and his instruments in a proper condition of cleanliness (and I am sorry to admit that with some of it is almost next to impossible to do so), will not be the medium of transferring septic material to his patients.

In those cases in which the services of the physician in charge have been engaged before the expected time of confinement, it is his duty to advise, and insist upon, a thorough renovation of the bed, the chamber d'accouchment, and request that the woman be given a hot sponge bath before she betakes herself to bed. The vagina need not be irrigated prior to labor, unless it be the seat of disease (gonorrhea, chancroid or condylomata especially). In those cases in which a practitioner is called at the last moment, and when labor is in progress, it is needless to state that the above cannot be thought of at the time, but should be enforced subsequently.

The necessity of irrigating the vagina during labor, antiseptically or otherwise, has never been apparent to me.

Should we employ vaginal and uterine injections as a precautionary measure after every delivery? I answer emphatically, no!

Does the necessity of washing out the genital tract, the uterine cavity included, ever arise? Yes!

Vaginal irrigations are never indicated in the healthy woman, in normal labor, nor thereafter, as long as the lochia remains pure, and as long as there exists no rise in temperature, nor pains in the pelvic region, other than those due to normal uterine contractions. They should, as a precautionary measure, be employed when labor has been protracted and severe, providing the obstetric canal has sustained injuries such as lacerations, contusions or excoriations. They should be especially resorted to in cases where it is necesary to introduce the hand frequently, or when instruments were employed to effect the delivery of the child.

Uterine irrigations immediately after the completion of labor or during confinement are very rarely called for, and should never be resorted to, except in case of the most urgent necessity, and that is, when it is observed that marked and severe symptoms of septic infection (which cannot be controlled by vaginal irrigations) is imminent, and when all other means usually employed fail, and there is a suspicion that portions of the secundines have remained within the womb. In such a case, and in such a case only, can I see any justification for their employment.

A Galactagogue and an Antigalactic.

DR. PROTA-GIURLEO states that he received from Mexico, some of the flowers of the *Ditana digitifolia* (*Rhamnus alaternus*). The use of an infusion of the flowers in the case of a nursing woman caused a decided increase of the secretion of milk. The remedy appears not only to increase the secretion when it has once been established, but also to provoke its appearance. The *Ligustrum vulgare* has the effect of checking the flow of milk. The best preparation of the latter plant is an infusion of 45 grains of the leaves in 4 ounces of water, to be taken in two doses, two days apart.—*N. Y. Medical Journal.*

DISEASES OF WOMEN.

Etiology and Treatment of Female Sterility.

DR. A. CALKINS, in an article published in the *Medical and Surgical Reporter*, makes the following remarks on treatment :

Having thus briefly reviewed some of the most prolific causes of female sterility, and noted a few necessary cautions regarding prognosis, let us examine what means we possess for remedying the evil. As injuries to the cervix are the starting point of the great bulk of female troubles causing sterility, so they are the ones calling loudest for attention in those cases that have once been pregnant ; but cervical lesions are not directly disastrous to pregnancy from mechanical reasons. If there were no sequelæ invariably following this lesion, its hindering power would be very slight indeed. Without a doubt the inherent force of the spermatozoa would be amply sufficient to overcome all the difficulties that an uncomplicated case of laceration would present. The correct interpretation of these injuries with our modern management would make a favorable prognosis nearly certain. Trachelorraphy in the great majority of cases is capable of restoring the eroded and everted lips to perfect apposition, thus soothing the reflex nervous phenomena of stomach, heart and nerves. But when we remember that hypertrophy of the whole uterine tissue, muscular and mucous, is a direct result of these lacerations and contusions, and that subinvolution, hyperplasia and puerperal inflammations, are intimately connected with them as cause and effect, and that at least 56 per cent. of all cases of female sterility are due to them, with 40 per cent. to displacements—when we remember these facts, so far as the life of the ovum is concerned, we need only investigate for the purposes of treatment the lining membrane of the uterus, *i. e.*, the endometrium. In other words, if we can cure the existing endometritis, we will at the same time remove, so far as is ever possible, the obstacles to conception.

If this endometritis be due to subinvolution from a lacerated cervix or perineum, trachelorraphy or perineorraphy should at once be performed, if the condition of the patient does not contraindicate so trivial an operation. Should involution still be slow in progress, and the other pathological symptoms remain, we will be justified in amputating the cervix high enough up to remove all devitalized tissues. Care must be exercised in this operation that complete occlusion of the external os does not occur from contraction of the cicatrix, or, from the same cause, stenosis. This may be guarded against by leaving in the cervix a short and blunt uterine stem, or a tupela tent, well disinfected, of medium size, about No. 12 English scale.

If the subinvolution date from an incomplete abortion with retained membranes and decidua, no surgical manœuvre will be necessary, unless it be scraping the endometrium with the dull curette to remove the thickened epithelial layer and fungous growths, if any exist. In the majority of cases, painting the interior of the uterus weekly with strong tr. iodine, with carbolic acid, will produce a sufficiently alterative and absorbent effect. Involution may be further hastened by continuous hot douching for 30 minutes, by a 1-2000 solution of corrosive sublimate, to the cervix and vaginal vault. Wool tampons, saturated in a solution of alum in glycerine and systematically packed around the cervix, act advantageously as sup-

porting and depleting agents. If much tenderness and pain exists, iodoform sprinkled upon the cervix will relieve it.

Recently, in one case, I used the intra-uterine tampon recommended by Dr. Talliaferro, with the best of success, so far as reducing the chronic inflammation and subinvolution were concerned. This method of securing a continuous and equable pressure, when there is no acute inflammation in the periuterine structures contra-indicating it, is a great advance in practice.

Restoring a torn perineum by perineorraphy favors the better consummation of the sexual act because the semen is retained until its function is performed, and therefore conception often follows. Whatever influences the laceration had upon the position of the uterus, any malposition of the latter will at the same time be remedied and the chances of fertility increased.

Dilating a stenosed os, or straightening a flexed cervix by rapid or gradual force, opens the channel for a free communication between the sperm and germ cells, and lessens uterine and ovarian engorgement.

Flexions, versions, and prolapses are to be replaced and mechanically retained until nature or a surgical operation secures the uterus in good position. Patience will be required, with considerable skill and ingenuity, when the displacement has resulted from old puerperal inflammations and cellulitis. Suitable pessaries or vaginal and uterine tampons, with local medication, will sometimes cause absorption, stretching, or breaking of the pseudo-membranes, allowing a return of the organs to their original position.

Electricity holds an enviable position as a curative agent in these cases, it having the power of bringing on resolution and absorption second to none. It is a strong tonic, stimulating both secretion and excretion. Under its stimulating action, infantile and under-developed ovaries may be excited to increased growth, their blood supply increased and assimilation improved, until they become competent to perform their required function in the vital cycle. Upon the uterine muscular fibre it acts as an excitant and tonic. It induces contraction and strengthens the tone, causing absorptions of effusions and regulating the circulation. For this reason it has been termed "the only true emmenagogue." In subinvolution and metritis it causes a chronic contraction of the muscular tissues, driving into the circulation and excretions the over-developed tissue cells and migrating leucocytes. In pelvic peritonitis and cellulitis it softens up the indurations and causes their absorption.

Spasmodic dysmenorrhœa is found to be a symptom in two out of five cases of sterility. If this is found to be of reflex origin. the original cause must be discovered and remedied. This cause is usually an irritation of the uterine nerves from a stasis of the blood in the uterine veins, the result of an unequal circulation. Electricity seems to be the one agent that can equalize the vascular supply.

Menorrhagia and metrorrhagia are frequently the cause of "one child" sterility, and can be directly traced to the increased surface of mucous membrane which is frequently diseased by inflammation, villous or glandular degeneration, or from the ulceration of new growths. Still, we must not forget that it may arise from some general systemic cause independent of any morbid condition of the sexual organs. When we conclude that the interior of the uterus contains the tissues at fault, and there be no possibility of hæma-

tocele, pyosalpinx, extra-uterine pregnancy, or malignant disease of the cervix, dilatation of the neck should be resorted to, and the interior of the womb thoroughly examined, and the appropriate treatment begun. If villous growths are found, they should be scraped off with the curette, and the endrometrium painted with iodine or sprinkled with iodoform. The intra-uterine tampon is highly recommended in such conditions. The internal remedies most likely to be of benefit are ergot, nux vomica, hamamelis, viburnum, and hydrastris.

If the excessive flow is only a symptom of some systemic difficulty, as Bright's disease, general active hyperæmia, or general debility, tonics and special treatment will be indicated. The constitutional treatment to be adopted in these complications following laceration of the cervix, subinvolution, etc., will depend upon the individual peculiarities of each case.

The main idea to be kept before the mind in the treatment of sterility, arising from some injury done the reproductive organs in a previous pregnancy, being to secure a healthy structure and function of the endometrium, and in proportion as we succeed in this endeavor will sterility give place to fertility.

Much more difficult and far less satisfactory is the management of cases that have never conceived. Their etiology is "shrouded in darkness," and their successful treatment is "past finding out." As a rule, primary sterilty depends upon some abnormal condition of the ovaries and their nervous connection with the uterus. This may be congenital, or constitutional, or due to inflammations or nervous reflexes.

If amenorrhœa exist, we should interrogate the heart, liver and kidneys for its cause. As menstruation is the safety valve by which the gradually increased blood and nerve tension is relieved, so amenorrhœa is circumstantial evidence that some other loss is taking place in the organism, or that the vital forces are too feeble to afford the expenditure. It may result from absence or imperfect development of the reproductive organs, or of degeneration affecting both ovaries, or the ovarian nerve centres may be in a torpid condition. There may be a partial and temporary arrest of development in the circulatory system and sexual organs, as in chlorosis. There may be mal-nutrition, anæmia and tissue degeneration in renal and hepatic diseases, or there may be excessive waste of nerve and nourishment in organic lung trouble, in which case amenorrhœa would be conservative.

The treatment will be mainly constitional. Electricity, nerve and heart tonics, wholesome and abundant food and exercise, with special medication for the heart, kidneys, liver and lungs.

Outside of cases needing medical or surgical treatment, we find numerous subjects in whom hygienic laws can be applied advantageously. Just at the close of menstruation, when the endometrium has cast its epithelium, and the soft, velvety tissues are engorged with blood, is the most favorable period for impregnation to occur. This fact has long been recognized and utilized, but not until quite recently has it been theoretically explained. It is well then to advise coition to be practised at this time, with abstinence between times. Cleanliness, although a delicate prescription to give a confiding patient, will be often a useful one. Have the vagina well flooded with pure or slightly alkaline water an hour or so before intercourse. This will sweeten the vaginal secretions, and remove the tenacious mucus, and thus favor life and motion

to the spermatozoa. If there be any dislocation of the cervix, laterally, have the act of insemination take place with the woman upon the side toward which the os points, and have this position kept for a couple of hours. If there be loss of perineal tissue it may insure fertility to have connection take place with the woman's hips elevated, and shoulders and head low, thus favoring the retention of the fertilizing fluid and its passage into the uterus.

To cure certain cases, temperance and regularity must be advised. Sexual excess or over-indulgence keeps the organs over-stimulated and engorged with venous blood, and in a condition similar to subinvolution. It is of course impossible to make any hard and fast rules, but it is safe to say that the sexual desire should not be gratified to such an extent as to leave the parties anæmic, exhausted and unfit for the other duties of life. To have the nervous system capable of acting its part in a fruitful union, it must not be in a condition of perpetual shock.

Permanganate of Potassium in the Treatment of Menstrual Disorders.

Dr. Ellis reports the following results of this treatment in *American Practitioner and News:*

As to the bad effects which are said to occasionally follow its use, such as great prostration, rapid and weak pulse, severe burning pain in the stomach, etc., these are due to its rapid decomposition in a comparatively empty stomach, and may be prevented by the patient's swallowing a tumbler of water or milk, preferably the latter, immediately after taking the medicine. In all the cases in which I have given the permanganate, I have insisted upon this precaution being taken, and with a very few exceptions, there has been no complaint of the severe gastric pain, and none of the symptoms of shock and collapse which have been said to so frequently follow its adminstration. As to the method of exhibition, I have found the pill form to be the most eligible, and those put up by the manufacturing chemists are more reliable than those made by the local apothecary, because they are so guarded by excipients as to be less liable to chemical decomposition. Following is the report of two cases to the point:

Case 1. On the 18th of January, 1883, I was consulted by Miss M., a pale, anæmic girl of seventeen. She had been suffering from irregular and painful menstruation for almost a year, and for months prior to her visit she "had seen nothing" After a trial with the usual domestic remedies she came to me for treatment. She was a good specimen of a chlorotic girl, presenting the usual symptoms of capricious appetite, dry cough, torpidity of the liver and bowels, nervous chills, and general *malaise*. For the anæmia I prescribed Basham's iron mixture in doses of a dessertspoonful with strych. sulph. gr. 1-30, three times a day, and daily exercises in the open air when the weather should permit; for the amenorrhœa I gave the following: Tinct. ergotæ ʒ ij; decot. aloe. comp. ad ℥ viij. M. Sig: ℥ j night and morning.

Under this treatment, in six weeks, there was slight improvement in the patient's general health, but the uterus showed no disposition to resume its arrested function. In the meantime my attention had been called to the permanganate of potassium in cases of this character by the article of Drs. Ringer and Murrell, published originally in the *London Lancet*, and reprinted in the *Louisville Medical News*, of February 24, 1883. I at once determined to try the remedy in the case of Miss M., and accordingly the next time she presented

herself I gave her the following: Potas. permanganat., grs. xvj; aquæ destil. ℥ ij. M. Ft. sol. Sig. A teaspoonful in a wineglassful of water three times a day.

This I directed her to use while continuing the tonic mixture, and should the catamenia show itself at any time, to report immediately to me.

On the evening of the fourth day after beginning this treatment, Mrs. M., the mother, came to tell me that her daughter had that morning become "unwell." I advised her to continue the medicine during the period; this she did, and the flow lasted three days. After this menstruation recurred regularly, and under the tonic regimen, with regular out-door exercise, she was soon restored to her former health and spirits.

Case 2. In May, 1885, Mrs. R. J., a widow, twenty-seven years of age, mother of two children, the younger five years of age, while going from the railway station to her home, a mile away, was caught in a sudden shower and completely drenched. She took a severe cold, and her menses, which were on at the time, were arrested. She made use of the usual domestic remedies, but did not succeed in re-establishing the flow, and at the next menstrual period, there being still no sign, she came to me for advice. As she seemed in perfect health in every other respect, complaining only of slight uneasiness, scarcely amounting to pain, in the back and loins, pregnancy being entirely out of the question, I gave her a dozen one-grain pills of permanganate of potassium and instructed her to take two pills night and morning until the flow was established or the supply exhausted. I did not see her again for two weeks, when she informed me that the catamenia made its appearance after the taking of eight of the pills, and continued for the usual time. On the day preceding the next period she took the four remaining pills with very excellent effect, since which time she has experienced no further trouble.

Byford on the Slippery Elm Tents.

Dr. H. T. Byford (*Obstetric Gazette*) speaks strongly of the advantages of compressed slippery elm tents. He says the characteristic of slippery elm bark is that upon being moistened a slippery substance exudes, which acts both as a lubricant to the tent and as a protection to the mucous membrane against that injury or abrasion which sometimes follows the use of dilators of this class. Another advantage is the rapidity of its action. The tents expand sufficiently in an hour or two for the introduction of a larger size, or two or three of the same size. This may be repeated until the desired dilatation is obtained, and, since the expanded tents are both soft and slimy, with a minimum amount of injury to the parts.

A small elm tent may be introduced at the office and left for twelve or twenty-four hours, and thus serve, in case it be used once or twice a week, as a mild substitute for the intra-uterine stem in cases of sterility. The patient can go home and keep quiet until she removes it by the attached string upon the advent of severe pain, or at the end of twenty-four hours. A glycerine tampon placed under the cervix is necessary in such cases to retain it in place.

These tents are also available as applicators, for the exuding slime carries the drug out from them instead of into them, gradually dilutes it and thus limits its action.

As dilators and applicators in vaginitis, vaginismus, urethritis, urethral stricture, they are also useful, and may be ordered of any size, shape or curve.

They should be kept in a tightly covered box or bottle, as they become brittle and lose their rapid expansive power when they get too dry. It would be a good thing to dip them in gelatine or cocoa butter when they are to be preserved for a long time.

Ovariotomy, followed in Four Days by Kelotomy; the Comparative Safety of Different Anæsthetics.

Dr. John C. Da Costa related the history of a case of an unmarried woman, fifty-one years old, who had first come to him about a year before with an ovarian cystoma. As she was very much broken down in her general health, being highly malarious, anæmic, and affected with cardiac weakness, with an intermittent pulse, chronic albuminuria, degeneration of the blood-vessels, and double femoral hernia, he declined to operate at that time, thinking that she could not bear up under the shock of an operation, but tapped her, and put her under general treatment. On her return, in January last, he again declined to operate, as there had been so little improvement in her general condition. In April, however, she returned much improved from a stay at Wilmington, where she had taken a course of steam-baths and electricity, but she soon began to break down again, and on the 20th of April the speaker removed the tumor at the Jefferson College Hospital. Towards the close of the operation, profuse hemorrhage took place from rupture of a large degenerated artery that had been tied, making it necessary to compress the aorta, enlarge the abdominal incision, and apply a second and then a third ligature, and sever the pedicle with Paquelin's cautery. The patient seemed nearly dead, and hypodermic injections of atropine and whiskey were given. Vomiting continued for three days, and the herniæ came down several times and were replaced; but on the evening of the 23d it was found that the left one could not be reduced. In consultation with Dr. O. H. Allis, it was agreed that the patient was not then in a fit state to be operated on. The next afternoon she was apparently dying; the heart had almost given out, vomiting was constant, and the left hernia was strangulated. Whiskey and morphine were given hypodermically, and Dr. Allis operated for the speaker, cocaine being the only anæsthetic used. The vomiting stopped at once, and the patient began to improve and went on to recovery.

Among the points which the speaker called attention was the value of cocaine in albuminuria. The patient was put on its use immediately after the ovariotomy, and the urine, which on the second day had fallen to seventeen ounces, went up the next day to thirty-seven ounces, and after the kelotomy to forty-nine ounces. Either ether or chloroform would have killed the patient.

Dr. Longaker remarked that recent observations had demonstrated the fact that ether was a dangerous anæsthetic under such circumstances as those described by Dr. Da Costa, and in such cases chloroform was considered by some much safer. Dr. Fordyce Barker considered chloroform much safer than ether during parturition, or if there was heart disease.

Dr. M. Price asserted that there was no danger in ether. Accidents happened because the administration was intrusted to any one who might be present, even the nurse. It should in all cases be given by one who understood its effects and who would give it his entire attention. It should never be given to saturation; even a prolonged operation required but a few ounces, and there

was never occasion for the use of a pound or more, as was sometimes seen. He had no fear of ether in heart disease or any other condition, even of extreme weakness; he considered the danger from the shock of an operation much greater than that from ether.

The President had employed ether from the time of its introduction, and had never seen any bad effect from it even in cases of puerperal convulsions, where the kidneys had been affected. If ether was properly administered, a few ounces only were required to produce an anæsthetic effect.

Dr. Baldy had given ether to patients suffering from weak heart and kidney troubles, and had never seen any bad effects. The diuretic effect of cocaine had been announced by Dr. Penrose.

Dr. Parish remarked that ether was certainly not safe under all circumstances, and it was decidedly unsafe in patients suffering from diseased kidneys or weak heart, or who were in a septicæmic condition. The greatest danger was not during the time of its administration, and the observation of the patient must not cease with the rally from its effects. The harm done would be noticed subsequently. He had seen much injury result from its use after labor for the purpose of curetting the uterus to remove shreds of placenta or membrane causing septicæmia. If cocaine would assist the action of the kidneys and would answer the anæsthetic needs, it should be preferred to ether for all patients suffering from kidney disease or a weak heart.

Dr. Longaker remarked that Dr. Emmet had been the first to call attention to this undesirable after-effect of ether.

Dr. Da Costa remarked that common sense was the basis of medical and surgical practice. He would not attempt an ovariotomy without ether. His patient had weak lungs and heart, an intermittent pulse, and albuminuria, and he gave her ether. Would Dr. Longaker give chloroform with such a heart? Ether was much safer as regarded the heart. As to the kidneys, chloroform would be better, but the risk from ether was the smaller. He had seen ether given to a patient who had suffered a year previously from an acute attack of nephritis, and the result was death a few days subsequently. The best man among the assistants should always be the one selected to attend to the ether. Dr. Orville Horwitz gave it in this case, and the speaker knew of no better administrator. The time of the operation was eleven minutes, between three and four ounces of ether were used and the woman was perfectly under its influence all the time. In the second operation, with the exception of the puncture of the hypodermic needle, there was no pain The solution of cocaine was applied by means of a brush to the cut surfaces as soon as they were incised. He did not consider ovariotomy and labor similar as regarded the choice of an anæsthetic; even if the kidneys were affected before or during labor, they recovered rapidly after the labor was over. —*N. Y. Medical Journal.*

Boracic Acid for Leucorrhœa.

From the excellent results which are yielded by boracic acid packing in chronic suppurating otitis, Dr. N. F. Schwartz (*St. Louis Courier of Medicine*) was led to employ it in a case of leucorrhœa which had resisted the most persevering use of the ordinary remedies. The experiment was successful within a fortnight, and the patient has remained well for several months since. Dr. Schwartz states that he has been equally successful in a number of other cases. His manner of using it is as follows:

Having first irrigated the vagina with water at as high a temperature as can well be borne by patient, a cylindrical speculum is introduced, and the vaginal walls very carefully dried, first with a soft sponge and then with absorbent cotton. This done, boracic acid in crystals is poured into the mouth of the speculum, and pushed up against the uterus and vault of the vagina with a clean cork caught in a uterine sponge-carrier, sufficient acid being used to surround and bury the intravaginal portion of cervix, filling the upper part of vagina. A tampon of absorbent cotton is then firmly pressed against the packing, and held *in situ* until the folds of the vaginal walls close over it as the speculum is withdrawn.

This should be allowed to remain three or four days, or even longer, as after this time there still remain some undissolved particles of the acid, nor will the tampon seem at all offensive. The ostium vaginæ, if examined in twenty-four hours, instead of being besmeared with the leucorrhœal secretion or discharge, presents a clean appearance, and bathed in a watery fluid, which begins to appear several hours after the packing has been placed, and in his cases this was the only discharge noticed afterwards.

However, a second or even a third repetition may be necessary, but in none of his cases, numbering nearly a score, has he found more than a second packing called for, and in many one sufficed; and in no instance has its use occasioned pain, not even inconvenience.

Electricity in Gynecological Practice.

DR. ANDREW GRAYDON reports in the *Medical News*, a series of cases of retroflexion and anteflexion of the uterus, and of chronic pelvic cellulitis benefited by the systematic use of electricity.

The method of treatment is detailed under the individual cases. In sharp flexions he begins with a flexible electrode insulated to within two inches of the tip, and as soon as the curve of the uterus will allow, this is replaced by a stiff one, similar to a uterine sound, with the same insulation as the flexible one. This he is in the habit of connecting with the negative pole of the faradic machine. Although the choice of poles is *here* a matter of little importance, in galvanism it is. In the case of a retroflexion, the positive electrode is introduced into the bladder. If it be an anteflexion, a flexible twisted wire electrode is placed in the rectum. This electrode is insulated up to the point, which is a movable olive, allowing graded sizes to be used. This form of electrode is also found of service in treating constipation, etc., as it will follow the convolution of the bowels with ease and little pain.

The electrodes should always be placed in position before turning on the current or connecting with the battery. In the beginning a painless current should be used, slowly increasing to the point of the patient's comfortable endurance. The current should be turned off gradually by means of the rheostat before removing the electrodes. Neglect of this will cause pain to the patient as the electrode passes over the perineum.

The conclusion Dr. Graydon draws from his work is, that in electricity we have a valuable agent. In uterine displacements, ill-developed ovaries and uterus with amenorrhœa, and in subinvolution, the faradic current may be used with advantage. But the galvanic is more valuable. All who do gynecological work know how stubborn many conditions are, and how slow to respond to remedial measures. Chronic ovaritis, pachysalpingitis, chronic peritonitis, cel-

lulitis, lymphadenitis, and pelvic neuralgia, try the skill and patience of the physician. Electricity promotes absorption of the adventitious tissue, allays pain and irritation, and sets up reparative action. It is within the reach of all physicians, no very extended knowledge is required to be able to use it with safety and advantage; and, although it requires time in its application, the benefits it confers upon a class of patients, in which other treatment is either useless or harmful, will repay any outlay of time and expense.—*Med. and Surg. Reporter.*

The Treatment of Chlorosis with Sulphur.

According to SCHULZ and STRUBING (*Deutsche Med. Wochenschr.*), three forms of chlorosis may be distinguished therapeutically: 1st, that which disappears on the simple treatment of an imperfect digestion; 2d, that for which the use of iron is necessary; 3d, that which is unaffected or made worse by treatment with iron. For this form the authors have employed sulphur, on the ground that it is one of the constituents of the tissue. They report a series of such cases treated in this way, and give the following generalizations of the results obtained:

1. In cases of pure chlorosis in which iron was without effect, the general condition was greatly improved by the use of sulphur.—*American Medical Journal.*

Pavesi's Hæmostatic.

The *Gazette de Gynécologie* gives the following formula: Sulphophenic acid, alcohol each 25 parts; benzoic acid, tannic acid, each 5 parts; glycerin 125 parts; rose-water 200 parts.

The sulphophenic acid is made by digesting 2 parts of sulphuric acid and 1 part of carbolic acid together for a few minutes over a water-bath. The benzoic acid is dissolved in alcohol and glycerin, and the tannin in alcohol. For tamponing the vagina, M. Chéron recommends cotton soaked in this mixture. While it coagulates the blood perfectly it does not act as an irritant.—*N. Y. Med. Journal.*

DISEASES OF CHILDREN.

Intussusception in Children.

DR. W. E. FORREST (*Amer. Jour. Obstet.*), writes a very valuable article upon this subject. Its value consisting in definite directions in regard to treatment, which are founded upon clinical facts. The varieties of intussusception, classified according to situation, are: 1. Intussusception confined to the small intestine. 2. Ileo-colic, *i. e.*, the small intestine passing through the ileo-cecal valve into the colon. These two varieties are extremely rare in children under ten years of age, and it is doubtful whether the first ever occurs in small children. 3. Ileo-cecal, *i. e.*, the cecum and ileum pass into the colon, but the ileum does not pass through the valve. This variety forms probably between eighty and ninety per cent. of all the cases occurring in children. 4. Colon intussusception, *i. e.*, the colon invaginates a portion of itself. This variety forms more than eight per cent. in children. From the foregoing it will be seen, and it must be borne in mind as it has a practical bearing upon the treatment, that in nearly every case of this trouble the colon alone forms the outside layer of the tumor, and that the invaginated portion of intestine can be acted upon by pressure from an injection, fluid or aerial, thrown into the colon.

There are three methods of treatment: Forcible injection, spontaneous cure, laparotomy. The method which is called for in each individual case depends upon the age of the patient. This appears to be a very hazardous state-

ment, but the following facts prove the contrary.

In laparotomy upon children under fifteen years of age, where the invagination was difficult or irreducible, the percentage of deaths was one hundred; in cases which probably could have been reduced by other means the recoveries were fifty-seven per cent. Spontaneous cure, that is, sloughing of the invaginated intestine with elimination, takes place in infants with a recovery of two per cent.; in children under five years six per cent., and at both these ages not all that pass the stage of elimination recover; between the sixth and eleventh year twenty-two per cent. recover. The following are the conclusions deduced from the above: At any age a pressure of six pounds to the square inch having failed to reduce the tumor after a lengthened trial, the pressure is to be cautiously raised to seven, eight, and even nine pounds, depending upon the acuteness of the attack and the length of time the invagination has lasted. If this fails.(?) If the child is under two years open the abdomen and resect the intestine. The child will probably die; if left to nature (spontaneous cure) the case is absolutely hopeless. If the child is between two and five years and injections have failed, the chances of spontaneous cure or laparotomy are about equal, and either course will be justifiable. The invagination cannot probably be reduced even by traction, and the principal object in opening the abdomen is either to resect the intestine or perform enterotomy. If the child is over five years, and the invagination has resisted eight and nine pounds pressure, it must be concluded that the part is irreducible, therefore it must be left to a "spontaneous cure," because there is a greater percentage of cures at this age, by this method, than by laparotomy.

There are two principles upon which the injection can be given, either by manual pressure upon the bulb of a Davidson's syringe, or by the pressure of a column of water, as by a tube attached to a reservoir elevated to the desired height. The Davidson syringe method is very objectionable, because the degree of pressure exerted is unknown, cannot be regulated, and is not constant. The diameter of the rectal tube is not great enough to support the relaxed sphincter, nor is there a shoulder large enough to exert sufficient pressure to retain the injection.

The proper nozzle to employ is one made by taking an old-fashioned glass vaginal syringe (one inch in diameter by six in length) with a rounded perforated extremity, removing the piston and inserting a cork with a hole through its centre, through which the rectal tip of a Davidson syringe, or a piece of glass tubing, or a quill, or pipe-stem is firmly thrust, having attached to the end of the tip, which protrudes beyond the cork, an inch from the distal extremity of the glass nozzle, an inch-wide roller bandage is wound over the tube upon itself so as to make a shoulder an inch wide. A receptacle for water is now attached to the end of the rubber tubing, and the apparatus is complete. Every two and one-half feet in height of the reservoir above the delivery tube in the patient's anus represents about one pound pressure to the square inch. A convenient way for obtaining the desired height is to carry the reservoir up the stairway; any increase in height can then be very easily and gradually obtained. The method above mentioned is the one advised.

Another method, but requiring more care and caution, is to attach to the rubber tubing, instead of a receptacle for water, a siphon containing an aerated

water, as carbonic acid, or vichy, etc. Every cubic inch of water that escapes liberates four cubic inches of gas. Hence the fluid must be allowed to escape in very small quantities and at not too frequent intervals.

If the pressure is desired to be made by the gas without the water, the siphon has only to be inverted, but the quantity allowed to escape at one time must be exceedingly small.

In regard to the degree of pressure that the intestine can bear, the following conclusions have been drawn from experiments upon cadavers. A pressure of eight or nine pounds to the square inch can be given to an infant without rupture of the intestine. The following useful points were at the same time discovered: That position and manipulation, in some cases at least, aid in forcing an injection through the valve; in most cases the valve will allow the passage of the injection before the colon ruptures; the valve is not the only obstacle in the passage of liquids or gas from the anus to the mouth, but friction in the small intestine is an important factor; if an injection is given with sufficient force to rupture the intestine, the tear will occur in the colon; injections cannot be relied upon to overcome obstructions in the small intestine. How long after an intussusception has occurred will it be proper to use the degree of pressure recommended? If the intussusception has not lasted long enough for sloughing to commence or adhesions to form, *i. e.*, within three days for the former, and five to seven days for the latter a pressure of six pounds to the square inch could safely be commenced with.

The pressure once begun should not be allowed to be reduced, but should be slowly and steadily increased until the safe limit is reached. Keep the pressure at this point for an hour, if necessary, in the meantime manipulate the abdomen gently. The patient may be etherized if the obstruction is obstinate. If the injection fails, the other alternatives are to be resorted to.

A Case of Umbilical Hernia (Congenital) Extending into the Cord.

Dr. C. Caldwell (*American Journal Obstet.*), was called to attend X. with her ninth child. Labor, normal. The child, a female, was observed to have a tumor at the fetal end of the cord. Its greatest circumference was about ten inches; abdominal opening, *i. e.*, the umbilical, about two inches. The wall of the tumor consisted of the amnion and peritoneum, and was so translucent that the intestine could be distinctly seen when the child cried and forced them out of the abdomen. The umbilical vessels were on the left side of the tumor. The integument extended up on the tumor about one and a half inches.

The child did not show any symptoms referable to the hernia. The tumor was covered with absorbent cotton held in place by a loose bandage. The next day the outer layer of the tumor, the amnion, being black and gangrenous in several places it was decided to operate; an anæsthetic was not given. The contents of the tumor were returned to the abdomen and a ligature placed as closely as possible to the abdomen, but not tightened so as to entirely occlude the opening. The tumor was now laid open to see that any loop of intestine had not been caught; a finger was introduced into the abdomen to protect the intestine during the passage of two hare-lip pins at right angles to each other. Two carbolized ligatures were twisted about them in the usual way so as to close the opening. The redundant part was trimmed off and puckered together by

a gathering suture, and dressed with iodoform and absorbent cotton.

The child was restless that night but was quiet the following day. The wound was dressed every day. On the sixth day feces was found in the dressing; the next day all the feces were passed through the wound. The opening gradually closed and seventh day after the fistula occurred all the feces passed per rectum. The wound healed readily. The cause of the opening into the intestine was not evident. It does not seem probable that the ligature caught the intestine or that one of the pins perforated the bowel. The only other case recorded is mentioned by Bryant. Dr. Caldwell in treating a similar case would remove the amniotic layer of the tumor wall, if it could be separated from the peritoneum, either by excising or amputating it at its juncture with the integument, would return the viscera and peritoneal covering and close the abdominal opening either by incising the peritoneum in order better to protect the intestines from needle points, or by stitching the sack to the bottom of the wound and supporting them by adhesive strips extending around the abdomen.

Method of Inducing Respiration.

Dr. Enos Blackwell reports a method of resuscitating the new-born infant in an asphyxiated condition. It has as one very decided merit that of immediate application, but is, as Dr. Blackwell says, a procedure which embodies the principles of the Marshall Hall Method. The child is laid on the palms of the accoucheur's hands, and then rapidly tossed with a quick motion, this being done while the placenta is still attached. The rapid movement makes the arms fly up, thus lifting the chest walls, and the infant takes air with a sudden sob. Although a rough-and-ready method, the author has found it highly successful.—*Medical Review.*

OBSTETRICS.

Hospital Obstetrics.

Dr. Charles Jewett (*St. Louis Medical Journal*):—In forceps operations the aim has been to deliver with a minimum amount of force. Probably in none of the above-mentioned cases did the traction force exceed fifty pounds. To deliver with the least possible force, three things are necessary:

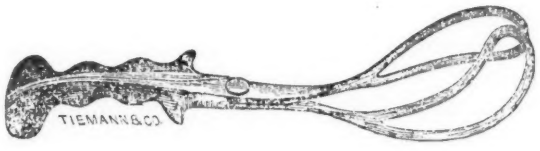
1. Time. It is often possible to coax the head along very slowly with moderate traction when a rapid delivery would involve a great expenditure of strength and much violence to the mother. It is a law of mechanics that the resistance which a moving body meets with increases as the square of the velocity. This law is not wholly inapplicable in the forceps operation.

2. The previous correction, when possible, of malposition of the head. This is not always possible.

3. Axis traction—in other words, the application of the force in the axis of the passages. Misdirection not only wastes force, but worse than this, the waste force is expended in doing harm. The axis traction forceps of Tarnier, and its modifications, offer great advantage in many cases of high operation. In these instruments the extracting force is applied in the axis of the forceps blades, and the axis of the blades lies constantly parallel with the axis of the passages as the head descends. The ordinary forceps should do the same thing. This cannot be accomplished by mere traction upon the handles, certainly not with forceps having a marked pelvic curve. It may be done by conjoining with traction, applied at the handles by one hand, a downward pressure with the other upon the shanks near the lock.

The operator is often in doubt as to the precise direction of the pelvic axis. I am not sure to whom I am indebted for the following useful hints for solving this difficulty and guiding the line of traction. The symphysis pubis is substantially parallel with the axis of the brim. The direction of the symphysis may be readily determined by laying the finger along its internal surface, or by placing the finger tips externally over the extremities of the symphysis. This affords a guide to the line of traction, which deviates but little from the axis of the inlet till the occipital pole approaches the pelvic floor. As the head glides along on the floor of the pelvic the forceps handles should sweep forward rapidly enough to make the anterior

In seven breech extractions none of the children were lost, except one, which was dead for two or three days before the admission of the mother. The method followed in breech deliveries is as follows. A forceps is always within reach of the hand. An assistant stands ready to apply pressure over the fundus at the critical moment—the delivery of the head. Anæsthetics are generally withheld to secure the full use of the expelling forces of the mother. In order to the full dilation of the passages preparatory to the delivery of the after coming head ; the pelvic extremity of the fœtal ovoid is left intact—in other words, the extremities are, if practicable, allowed to remain flexed upon the abdomen, and the descent of the breech is



margins of the blades hug the ischiopubic rami as closely as possible without crushing the intervening soft parts. These rules serve for general guidance in the use of forceps, but may of course require modification in individual cases.

In connection with this subject I submit a forceps which has been made for me. It is designed to meet the requirements of modern obstetrics in the matter of cleanliness. The only important new feature is the construction of the handles. The handles are of hard rubber, smoothly polished, and they wholly envelope the metal. As the rubber is vulcanized upon the metal, there are no crevices for the lodgment of filth. With the exception of the handles, the general model of the instrument is similar to the Elliot forceps, but the shanks are stronger and the lock is a half Smellie.

not usually hastened by traction. Another reason for avoiding traction is the fact that the head and arms are liable to become extended if the trunk is dragged down. When traction becomes necessary in case of delayed or impacted breech, the attempt is made to maintain the flexion of the head by means of external pressure applied over the abdomen by the assistant. In the expulsion of the trunk much depends on the prompt delivery of the arms. If manual extraction of the after-coming head is not readily accomplished with moderate force, the trunk of the child is carried up over the abdomen of the mother and the forceps applied to the head. Great reliance is placed on the forceps in difficult delivery of the after-coming head. The application is easy, and, once applied, failure is practically impossible

where a living child is possible by any method of extraction. On the other hand, manual methods in difficult cases often fail and when successful are liable to do fatal injury to the spinal cord.

Late Infection in the Puerperal State.

Dr. B. C. Hirst read a paper on the etiology and treatment of cases of this affection. He said that the object of the paper was merely to relate briefly the histories of four cases, all of which he believed were due to the same cause, all yielding to the same treatment, and conveying, therefore, a lesson of some interest and value. The first case was that of a young primipara, who had been delivered without difficulty after a moderately long labor. She had left her bed on the eleventh day, having had no fever and having manifested no unusual symptom. Two days afterward her cervix was exposed to view by means of a bivalve speculum, and a slight laceration was discovered, healing by granulation. The following morning, the fourteenth day after delivery, the patient was unwell, her temperature was 102° F., large doses of quinine were given, but the temperature rose to 103°, where it remained, with slight morning remission, for two days. A more careful examination being made, it was discovered that the uterus was unusually large, that the os was patulous, and that there was a foul-smelling discharge, with considerable abdominal tenderness. The history of the case with these symptoms pointed to the retention of membranes, possibly a portion of placenta, and their subsequent decomposition, that had been originated by the admission of air to the vagina and uterus by the use of the speculum. Acting upon this diagnosis, the uterine cavity was lightly scraped out with a dull curette and a large quantity of decomposing decidua removed. This was followed by an intrauterine injection of bichloride of mercury through a Bozeman's double catheter. The woman's temperature at the time was 103°. The following morning it had sunk to 99°, and within twenty-four hours was normal, and so remained.

The second case was also that of a primipara. The labor had been terminated by the forceps. Upon the eleventh day the woman, although perfectly well until that time, had a morning temperature of 101°, rising in the evening to 102°. The uterus was found larger than it should have been. The os was patulous, and there was a fetid discharge. Profiting by the experience gained in the first case, the uterus was curetted and a considerable amount of decidua removed, and an intrauterine douche given. In this case the womb almost at once contracted and the discharge ceased; but the patient had, unfortunately, an exacerbation of a tubercular trouble in one lung which kept the temperature high for some days.

In the third case, also that of a primipara, after an instrumental labor and an apparently normal lying-in, the temperature rose on the twelfth day to 99.8°, and on the following day to 100°. At the same time a fetid muco-purulent discharge made its appearance. In this case a very large quantity of decidual membrane was removed, and the scraping was repeated on the following day, whereupon the temperature fell to normal and the discharge ceased.

The fourth case was that of a primipara, who on the sixth day, after an easy labor, had a temperature of 100°, although previously there had been no fever; the uterus was very large, and the os quite patulous, but there was not much discharge. The same treatment was employed that had proved successful in the other cases, with the result of

reducing the temperature within twenty-four hours to normal, where it remained.

Now, this experience was entirely too limited to enable one to come to a definite conclusion as to the cause of late infection in the puerperal state, but these cases suggested to the speaker's mind the possibility at least that the retention and subsequent decomposition of shreds of membrane or fragments of placenta would be found to be the most frequent cause of fever late in the puerperal state, and that, if not interferred with, this condition might lead to septicæmia and pyæmia. Other causes of fever late in the puerperal state were, of course, well known. Partially healed wounds of the cervix, vagina, and perinæum might be torn apart and the fresh wounds thus produced might give entrance to the germs of septicæmia. Exposure to an atmosphere impregnated with emanations from sewers or water-closets from bad sanitation might give rise to febrile diseases at any time during the puerperium. There was a possibility that the pyogenic micro-organisms, which might carry on their work in the uterine cavity without very serious consequences to the patient, might in the tubes manufacture their product, pus, in such quantities that it could not be drained off, thus producing an abscess that might possibly open into the peritoneal cavity. There was a still more remote possibility that a pyosalpinx might be developed late in the puerperium by other pathogenetic micro-organisms, by those of gonorrhœa, of tuberculosis, or even of actinomycosis. Finally, any of the febrile diseases that were liable to attack a woman at any time might fasten themselves upon her during the lying-in period, but, as he had already sa id, it seemed to him that the most common cause of late infection in the puerperal state was the decomposition of retained membrane fragments of placenta, and that therefore the curette and the intrauterine douche might be employed as a routine treatment in all cases where there occurred late in the puerperium fever associated with a large uterus, a patulous os, and a foul-smelling discharge. This treatment could do no harm, but might effect much good.—*N. Y. Medical Journal.*

The Significance of the Retention of the Membranes after Labor.

The importance to be attached to the retention in the uterus of portions of membrane after the completion of the third stage of labor has been variously estimated by different obstetricians: some—*e.g.*, Winkel, Dorn, Ahlfeld and Graäfe—holding that grave dangers are to be apprehended when this occurs; while others—as Alshausen, Credé, Fisher and Cohn (who has reported two cases in which nearly the whole membrane had been retained for five days without causing any pyrexia)—believing that little or no danger of hemorrhage, septicæmia, or other puerperal mischief is caused by the retention of even considerable portions of the membrane. An explanation of this divergence of view has recently been attempted by Professor Lazarevitch in the opening article of the new Russian *Obstetrical and Gynæcological Journal.* His explanation is founded on the fact, unrecognized by most obstetricians, that the "membranes," even at the full term, are composed of and more or less separable into three distinct layers, representing the chorion, the decidua and the amnion. Their strength has been investigated by Poppel, Duncan and Ribemont, and the amnion showed by them to be much tougher than the chorion in conjunction with the decidua. Professor Lazarevitch has also made a number of researches on the subject by means of an apparatus

consisting of two rings covered with India-rubber, between which the membrane to be examined was stretched, the resisting force being estimated by means of a wooden hemisphere on which weights were placed, which the membrane was made to support, more weights being added until it gave way. These observations showed that the integrity of the ovum depends almost entirely on the amnion. During labor some separation of the membranes from one another usually occurs, and this is especially the case when the chorion, split or torn below, maintains a close connection with the decidua, and the decidua with the uterine wall ; the progress of the labor also separates the amnion from the chorion. Roemer explains the separation of the membranes from one another by their unequal elasticity, and Professor Lazarevitch declares that the chorion, being less elastic as well as more easily torn than the amnion, is frequently ruptured in several different places, some portions coming away attached to the amnion, and some being left behind attached to the uterus. The causes of retention of the chorion with the decidua are (1) the presence of villi on the chorion ; (2) extravasation of blood on the decidua, with consequent formation of fibrous adhesions ; and (3) adhesions in consequence of endometritis and choritis. The amnion may be retained in consequence of—(1) occasionally occurring adhesions between it and the chorion and decidua ; (2) early rupture and escape of all or part of the liquor amnii ; (3) a low attachment of the placenta or placenta prævia ; (4) intra-uterine manipulations; (5) anteversion of the uterus after the birth of the child ; (6) exceptional weakness or thinness of the amnion. Retention of the decidua (which is formed from the uterine mucous membrane, not from the ovum) is, as a rule, of little moment, though it is perfectly possible for endometritis decidualis to occur, and for the retained portions of the decidua to serve for the development of microörganisms introduced from without. Shreds of the chorion, if retained either by themselves or together with the decidua, do little harm, as they rapidly undergo chemical and mechanical destruction, and are carried away with the lochia. The amnion, when retained, is much more liable to become the developing ground for bacteria, and it is to the retention of this part of the membranes that alarming symptoms are usually due. Professor Lazarevitch lays stress on the importance of straightening or replacing the uterus in its proper position after the birth of the child, before the after-birth comes away.—*Lancet.—Obstetric Gazette.*

Mortality in Public Lying-in Hospitals of Germany.

DÖHRN, in *Zeitsch. f. Geb. und Gyn.*, draws attention to the great diminution in the mortality of lying-in women which has taken place in the above mentioned establishments since the introduction of antiseptics, He selected the period of 1874–83, since in 1874 antiseptics were scarcely used anywhere, while in 1883 they had become very general. The total number of cases of labor was 104,289, and 1,529 women, or 1.37 per cent., died. The vast improvements indicated by this percentage will be clear on comparison with the statistics of previous years. Thus, in 1866, Lefort found the average mortality in the lying-in hospitals to be 3.4 per cent., while Winckel, in 1869, calculated the mortality on 500,000 births to be 3 per cent. Even this great improvement, however, in lying-in institutions leaves their results far below those of private practice—*Medical Record.*

DISEASES OF WOMEN.

Operation for Lacerated Perineum.

DR. R. F. YOUNG thus writes in the *Virginia Medical Monthly:*

I was called to see Mrs. D., multipara, aged forty-eight. I found her with a very pallid countenance, and she was very much exhausted from uterine hemorrhage, which, she stated, had been almost constant for two weeks previous. On making a digital examination, I found a complete laceration of the perineum, with the womb retroverted and very much enlarged. I used tampons to check the hemorrhage, but, when removed, the flow would be the same. After two days I lifted the fundus as far forward as possible, and applied a Hodge's closed-lever pessary, with the result that, by relieving the uterus of its own pressure and sagging, the hemorrhage was stopped. The object was to keep the womb in its normal condition, which the pessary failed to do, owing to the absence of perineum.

It was desirable that the enlarged condition of the womb should be lessened as much as possible; and to this end it was held in position by means of a large cotton ball, saturated with a solution of carbolic acid and Listerine. This ball remained eight days without discomfort, after which it was removed and the vagina was washed out thoroughly. This was repeated several times, with the result of materially lessening the enlarged uterus. I had never left a tampon in the vagina longer than four days, previous to this time, and naturally watched its effect with some anxiety.

On the 18th of August the patient was ready for operation. I had directed her to take castor oil the night before, and on the morning of the operation the bowels were thoroughly evacuated by means of an enema.

When the patient was thoroughly anæsthetized, which was done by means of chloroform, the hips were brought close to the edge of the table. An assistant held firmly each leg with one hand, while with the other the labia and adjacent tissues were stretched firmly and evenly outward, so as to bring thoroughly into view the parts to be denuded. This was done with a small bistoury and artery forceps—the latter being preferred to the tenaculum, for the reason that the mucous membrane could be caught up and held with greater facility.

The parts were denuded by commencing at the edge of the labium on the left, and dissecting a strip across to the right, continuing this up to a previously marked point in the median line of the posterior wall of the vagina.

When this was completed, the next step was to insert the index finger of the left hand into the rectum, and by making firm pressure upward and outward against counterpressure with a sponge, the hemorrhage was soon checked and the sutures were put in position. Commencing next to the anus, and introducing a needle about an inch from the freshened surface, four deep sutures were introduced, the needle being guided by the index finger of the left hand, and its point of exit facilitated by pressure of the thumb of the left hand on the parts adjacent. When the deep sutures were all in place, they were drawn up and tied securely over the quills; the superficial sutures were placed so as to coapt the edges of the denuded surface.

The after-treatment consisted in the use of opium sufficient to lock up the bowels for eight days, and evacuating the bladder with scrupulous care, preventing the urine from coming in contact with the wound. When placed in bed the patient's knees were tied firmly together, and kept so for two weeks.

The usual T bandage was omitted, and the only dressing used was carbolic acid and Listerine solution. In this a cloth was saturated and kept constantly applied.

On the seventh day I removed all the sutures, and found that a small slough had occurred by having the first suture drawn too tight, but the upper two-thirds had healed by first intention.

The lower bowel was evacuated *per enemata* of warm water, and the parts washed perfectly three times a day, after which a pledget of cotton, smeared with vaseline, was placed between the buttocks to prevent chafing.

The sloughed surface healed kindly, and granulations from the bottom filled up the cavity without leaving the parts in a distorted condition.

Another Modification of Emmet's Cervix Operation.

Dr. R. Stansbury Sutton, of Pittsburgh, Pa., read a paper before the American Gynæcological Association, embracing notes of a case of old standing, neglected double laceration. The cervix was composed of dense hyperplastic tissues, almost cartilaginous in character. An operation by the ordinary method was out of the question, for the sutures would not have held. In order to remove the greatest amount of cicatricial tissue and overcome the condition, the following procedure was resorted to: The lower lip of the laceration was denuded of its altered mucous membrane, leaving only a narrow strip corresponding to half the strip usually left to serve for the future os. The upper lip was treated in the same way, leaving the opposite half of the strip of mucous membrane. When the flaps were brought together, the strips of mucous membrane lay side by side. In this way adhesion of the canal was prevented. Good union followed the operation, and at the end of three weeks a Simpson's sound was passed without difficulty. This operation might be of service in certain cases where the usual operation could not be performed.

Dr. Emmet considered the modification an ingenious one, but its value could be determined only by further trial. In cases, however, where there had been much cystic degeneration it was often better to amputate a portion of the cervix, so as to get down to healthier tissue.

Dr. George J. Engelmann, of St. Louis, had paid very little attention to the strip of mucous membrane, but, in such cases as had been described by Dr. Sutton, cut away nearly all the mucous membrane and inserted a short piece of fine catgut. This kept all the opening which was necessary.

Dr. Baker had been in the habit of removing a transverse wedge shaped portion of each lip, and then bringing the parts together. In this way the hyperplastic tissue preventing the apposition of the surfaces was removed.—*N. Y Medical Journal.*

A Powder for Pruritus Vulvæ.

Martineau (*Annales Med-Chirurg; Glasgow Med. Jour.*) recommends the following formula, suggested by Delioux de Savignac: Powdered lycopodium, 1 ounce; subnitrate of bismuth, 5 drams.

The following ointment may be applied at bedtime: Tannin, calomel, or extract of belladonna, 15 grains; glycerite of starch, 1 2-3 ounce.

Leucorrhœa.

Dr. Keating concludes an article in the *Medical Reporter*, as follows:

Let me call your attention now to the subject of treatment, and I beg that you will follow me with care, as I shall en-

deavor to outline this part of our subject, basing my statements upon the divisions as presented.

The discharges from the genital tract of children are usually of the mucopurulent or viscid type. A local vaginitis is the result of rape, masturbation, or dirt, neglect, poverty, or possibly gonorrhœa. It is an extremely difficult matter to differentiate, and the treatment will be about the same, and it is alone the question of treatment with which we have to deal at present. If the attack be acute, we should bathe the parts with a solution of lead-water and laudanum, or use warm water irrigations, and give an injection of a lotion composed of sulphate of zinc, wine of opium, to act as an astringent. You might also use hot irrigations (one part in one or two thousand) of corrosive sublimate. In cases that have been of long duration, it is far better to etherize the case, gently introducing a small blade of a speculum. Inspect the parts thoroughly, wash them out well, and use either finely powdered boric acid, or, better still, iodoform, to the whole surface, doing this every three or four days, The same condition of affairs, with painful urination, would point to gonorrhœa, the treatment of which would be about the same, though possibly you may pencil the parts thoroughly with a strong solution of nitrate of silver, and give copaiba, for its influence upon the mucous membrane internally, and use as an injection sulphate of zinc, wine of opium, or a lotion with cider vinegar as its basis. Free irrigations of warm water with corrosive sublimate (one part to three thousand) several times a day.

An intermittent white leucorrhœa of a curdled appearance would point to endocervicitis, where the discharge of mucous membrane has been acted upon by the slightly acid secretions of the vagina. Such cases are found in the higher ranks of society and in the tired-out sewing girls, and is dependent upon anæmia, with passive congestion of the genital tract. The constitutional treatment I have already alluded to. The local treatment would consist of injections that are slightly astringent: chlorate of potash, alum, white-oak bark, Picis liquid, golden seal, etc. These injections should be made once or twice a day, using cool water; and it is well to bear in mind that such substances should only be used that leave no stain upon the underclothing. Sea baths are admirable, or salt water, cold or warm, is of great service both as baths and injections: mild applications might be made to the uterine canal after dilatation and intrauterine suppositories of mild astringent. In these cases, after the bowels have been regulated, I am a firm believer in the use of arsenic with chalybeate waters. Indeed, if you put into a demijohn of pure spring water a couple of ounces of iron filings and a little lemon juice you will get an admirable water, which can be taken in a wineglassful with five drops of Fowler's solution two or three times a day after meals—a valuable and cheap tonic. I have known the sulphate of copper to be an excellent application when applied to these mucous surfaces. You can use it on a cotton applicator with a ten or fifteen per cent. solution. Now, it must distinctly be understood that the more superficial the catarrh is the less active should be the treatment; indeed, a common sense view of the matter would show us, in the stage where we have great congestion and dryness of the surface, that astringent or dry applications do more harm than good in whatever form of catarrh affecting the uterus and its appendages. In great congestion,

either active or passive, the endeavor should be made to establish the secretions, and rather to encourage at the onset a leucorrhœa than to check it. For such purposes we make use of the properties of glycerine cotton tampon, use injections of warm or hot water, hoping to relieve the congestion or to get reaction. Use local vapor baths, or local depletion by scarification or leeches, but where we have excessive secretions, which may be due to passive congestion, and is simply debilitating, or where we have the exudations coming from denuded surfaces, then a form of treatment should be used such as are astringent or alterative to the mucous membrane. We make use for such purposes such powders as bismuth, iodoform, tannin, etc.; or, again, if the catarrh has been extensive, the submucous tissue involved, proliferation of tissues take place which need absorption, then stronger solutions can be used to the mucous surfaces, such as Iodine or Churchill's solution. You see, then, that the choice of applications to the uterine mucuous membrane is not mere guess-work. There is a direct reason for each application used, and I beg of you bear this in mind as there seems to be a tendency to routine practice which is to be regretted in the extreme. But there is another condition of affairs which lead to a multitude of symptoms —prominent among them being leucorrhœa—and these are due to passive congestion of the uterus, interference with the return of circulation, dependent on mechanical action; you know that very frequently after severe confinement the uterus fails to return to its normal condition, and I firmly believe that the prolonged dorsal decubitus in cases of this kind tend to the production of retroflexion so commonly seen in married women after childbirth.

There is a want of contraction in the muscular elements of the uterus, and the want of absorption of these materials that have undergone fatty degeneration and the connective tissue, remain and give it weight; and finally, the superabundant pressure by the intestines causes a retroflexion or retroversion to take place, and in this way the interference with the exit of the venous blood, you often have some pelvic cellulitis or peri-uterine deposit, or the patient has a partial prolapse of the uterus and its appendages. Now, passive congestion, as you know, leads to connective tissue proliferation, and this engorgement will give rise to secretions that are abnormal, from the mucous membrane; indeed, in many cases we may have subacute inflammation of the womb following this cause, which is noted by excessive tenderness to the touch. We may have dysmenorrhœa, sciatica, metrorrhagia, leucorrhœa, abnormal depth of the uterine canal, constipation, and endometritis. We may have also certain congenital abnormalities, or displacements, occurring at puberty—as anteflexion. I do not include anteversions, because my own studies lead me to believe that anteversions, even when very marked, are often normal conditions. In anteflexion, especially if it be at the internal os, engorgement with dysmenorrhœa, hypertrophied mucous membrane, and cervical catarrh will be the result. Applications made to the surface will be of little value. We endeavor, as far as we can, to relieve this engorgement; to straighten the canal as much as possible and then, if necessary, use astringent washes to check the secretions. In the first class of cases mentioned, those of endometritis, which are acute, with subinvolution, the local treatment may be classified as follows: First of all, rest; uterine rest, as well as rest from physical

exercise. The patient, I believe, is far better off in bed. Occasional doses of opium, if much pain. Counter-irritation of the abdomen by turpentine, or possibly better, by painting the abdomen with tincture of iodine. Hot water irrigations in large amounts if the symptoms are acute. Scarification, or leeching the cervix. When the acuteness of the inflammation subsides, a careful examination of the uterine canal may be permitted, but no astringent application should be used until all acute symptoms have been entirely relieved.

Constitutional Treatment.—The first thing to do is to relieve all hepatic engorgement, and unload through the mucous membrane of the bowel. For this purpose, it is well to administer small doses of calomel or blue pill, followed by salines; indeed, very often a dose of Rochelle salt will check an obstinate leucorrhœa which is the result of uterine engorgement. Free purgation is absolutely essential. The patient's strength must be sustained by readily digested food and the avoidance of great exertion. Large doses of bromide of potash are also advisable. Quieting the nervous system will undoubtedly reduce the hyperplasia. If all the acute symptoms have passed, and the circulation been re-established, the object is then to bring the uterus to its normal size, and thus aid in its restoration, and cause absorption of the deposits of inflammation. For this you have recourse to a pessary, that will support the fundus of the uterus and straighten the vagina. Your choice here should be dependent greatly upon the degree of prolapse and the character of the displacement. It is far better to make your support of cotton, or oakum, or carded wool, which has been made antiseptic, and thereby can be retained for several days.

In regard to the treatment of these cases, when you have remaining simply a large uterus, containing the products of inflammation in its connective tissue, with symptoms due to mechanical pressure, and a leucorrhœa more or less abundant, we will be obliged to use stronger applications to the mucous surface as far as the fundus; those of iodine, Churchill's solution, or even the stronger acids, and if the mucous membrane has taken upon itself excessive growth, with hypertrophy of its follicles, the blunt wire curette of Thomas will often have to be brought into use before the tissues will resume their normal condition and function.

A Method of Treating Some Cases of Scanty Menstruation.

Dr. James Braithwaite in the *British Medical Journal:*

Putting aside cases of deficient or absent menstruation from constitutional causes and from some ovarian affections many cases of amenorrhœa, or of very scanty menstruation, remain, in which the fault appears to lie with the uterus alone. Some of these cases are attended with the most distressing symptoms, and when the system generally and the ovaries are healthy, relief is urgently required. This is usually sought by the administration of emmenagogues and other well-known remedies, but usually with very little success It will, I think, be admitted by all who have frequently to treat these cases that the means at our disposal for doing so are very inefficient. A really good emmenagogue has not yet been discovered. The announcement that permanganate of potash is a reliable one was welcomed by the profession. Cases have been published showing very frequent, if not almost uniform, success from its administration. This has not been my experience, and I have given it

in not less than forty suitable cases. Any benefit from its use was very seldom met with.

Many years ago, reflecting upon the hemorrhage caused by intrauterine polpyi, I introduced into the uterus, when I wished to bring on menstruation or to increase its amount, small foreign bodies, which were left in its cavity. At the same time other means of treatment were not neglected, such as the use of hot baths, the administration of iron, aloetic aperients, and alteration in their diet and habits of patients, when luxury and indolence appeared to be at the root of the matter, as they sometimes are. The most convenient foreign body is a piece of hempen ligature, doubled several times, knotted, and impregnated with pitch. These were easily passed up to the fundus without any preliminary dilatation, and left there. Some success resulted from their use; but the uterus generally expelled them before they had done their work, and I therefore abandoned them for a rubber stem. This is very efficient, and I have by means of it been able to do everything needed in a considerable number of cases. The stem carefully washed in carbolized water, should be introduced and left in position a week before menstruation is due, or supposed to be due. Usually a hemorrhage will result within a few days; but the stem should remain *in situ*, whether it comes on or not.

Case 1.—As an instance of the occasional rapidity of this mechanical treatment of amenorrhœa, I can give no better illustration than one I had in December last. A young woman, aged 17, with amenorrhœa of four months' duration. She was pale, but not chlorotic, and attributed the amenorrhœa to a chill. No complaint was made of her sight; but on her second visit, in a week, she had to be led into the room, as she was going blind. This loss of sight was already very serious, but it only dated back four days. The disease was ascertained to be optic neuritis, caused by lead-poisoning from the use of dry coloring materials in the manufacture of porcelain. It seemed, however, not improbable that the amenorrhœa, resulting, as it appeared to have done, from suppression by cold, might be a factor in the case, and that relief by a copious hemorrhage from the uterus would be of use. Accordingly, after slight dilatation, I introduced a stem with the result of bringing on within forty-eight hours a very free sanguineous discharge. Remedies for lead-poisoning were at the same time administered. The neuritis, however, was most acute, and ended in permanent blindness. This deplorable result does not impair the case as an illustration of what can be done by this mechanical treatment in suitable cases. The stem was withdrawn by the girl's mother before the next period was due; but menstruation has recurred regularly up to the present time.

Case 11.—Mrs. M., aged 30, married two years, but childless, was of healthy parentage. She appeared to be, although rather pallid, a strong and vigorous woman, fond of out-of-door exercise, and stated that she could walk some miles without fatigue. During 1883, without any assignable reason, her periods become more scanty, and the color of the discharge paler. Although her complexion was pallid, she was not anæmic or chlorotic. She next began to have headaches at and preceding the periods, and these soon became exceedingly severe, and more or less continuous between the monthly periods. I tried bromides in vain, and permanganate of potash had no effect on the amount of the discharge. Her description of the

severity and nature of her head symptoms were very vivid, and led me to think that if no relief were procured, epilepsy would ensue. A very curious symptom also occurred, which impressed me much, namely, that her hair, which was short, dark, and curly, became within a few months quite grey. Although her appearance was not that of a person suffering from fullness of blood, I felt that the case was very urgent, and accordingly subjected her to the stem treatment, with the result that the next period was copious and prolonged. Her head was completely relieved; and at the present, two years afterwards, she is in good health.

I could give numerous instances of the success of this mode of treatment, but I have also met with some failures. Still it is the best and most certain means there is of bringing on absent menstruation, or of increasing the flow where it is present but deficient in amount. Any kind of stem may be used. Treatment of amenorrhœa by dilatation of the cervix has been used by Dr. Carstens, of Detroit; and as before the use of a stem it is generally or often necessary to dilate slightly, this dilatation may to some extent assist in producing the result. For several years I thought this mechanical treatment was original, as the well-known galvanic stem acts in a different way altogether, and is considered especially suitable for cases of infantile or undeveloped uterus. I am satisfied, however, that the possibility of treating successfully cases of amenorrhœa and scanty menstruation in the way described, is almost unknown to the majority of the profession.

Removal of Solid Uterine and Ovarian Tumors by Laparotomy.

Dr. Matthew D. Mann, of Buffalo, read a paper on this subject before the Medical Society of the County of New York. The cases had not been selected, but constituted his whole experience. They embraced three solid tumors of the ovary, four pedunculated fibroids of the uterus, and two fibroid enlargements, of the uterus of a sort to require its removal. The body of the uterus was removed in one other case also. Of the ovarian tumors, the first was an adeno-cystoma, the second undoubtedly a solid fibroid, and the third a sarcoma. In the second case it was thought during the operation that the tumor was uterine rather than ovarian, and the pedicle was treated by the external method, the clamp being used. Sloughing and hemorrhage took place, after which supra-vaginal hysterectomy was performed, but the patient died of septicæmia. Had the tumor been recognized in the first place as being ovarian rather than uterine, he would probably have tied the pedicle and dropped it. The fourth case proved to be one of fibro-myoma of the uterus. Before the operation the diagnosis lay between a fibroid of the uterus and a solid ovarian tumor. There were adhesions; the pedicle was short, thick, and very muscular. It was treated by the external method with the clamp. During the operation fluid suddenly entered the peritoneal cavity, and proved to be from a rent which took place in the rectum. The nurse had given an enema before the operation, which had not come away; hence the accident. The patient, however, made a good recovery. In the fifth case an enlargement of the abdomen had been noticed three years before the operation. The whole abdominal cavity seemed to be occupied by the tumor. There was a sensation like ballottment. The tumor was a myoma attached to the fundus by a short, small pedicle. The tumor was

divided before it was removed. He had intended to treat the pedicle by the external method, but unfortunately, he said, he changed his mind, and tied and dropped it. The surface was cauterized. The tumor was a soft myoma. In the evening the patient passed into a state of collapse. The abdomen was re-opened and it was found that the silk ligature had slipped off entirely, allowing hemorrhage. A clamp was now applied, and the patient finally recovered. During her low state an enema of hot water was given, which had a decidedly beneficial effect on the kidneys and the general condition. The sixth case was one of large fibroid, involving the whole body of the uterus, giving rise to painful symptoms. Supra-vaginal hysterectomy was performed, the clamp was employed, and the patient recovered from the operation, and from symptoms which had before rendered life a burden. The seventh case was one of myomatous enlargement of the body of the uterus, œdematous, and weighing five pounds. The operation resulted in recovery. The eighth case was one of fibro-cystic general enlargement of the body of the uterus. Not long before the operation the woman had become pregnant, and her physician, recognizing the presence of the tumor, brought on an abortion at about the seventh month. At the operation some of the contained fluid escaped into the peritoneal cavity, but the latter was thoroughly cleansed. The clamp was applied. The patient recovered.

In his remarks, Dr. Mann said that most of the medical profession believed that solid tumors of the uterus and of the ovaries were beyond surgical help, unless, in the case of the former, they presented at the os. But, according to his experience and observation, removal of these tumors was not more dangerous than that of cysts. The diagnosis of solid tumors was more difficult than that of cysts. Exploratory incisions was in many cases less dangerous than doing nothing. As to the diagnosis of adhesions, the length of the pedicle, and attachment to other organs, it amounted to no more than a guess until after the abdomen was opened. Regarding the indications for an operation in these cases, he quoted with approval Keith's conclusions on this subject, adding thereto two or three other indications. One of the fibroids, no matter what their size if they were wearing out the patient, should be removed. A second indication, calling for supravaginal hysterectomy, was the presence of septic poisoning from a sloughing intra-uterine fibroid the enucleation of which would only add to the danger by affording new avenues for absorption. In only one of his five cases could removal of the uterine appendages instead of removal of the uterus have been seriously considered, and in this case it was a question whether it would have had any effect upon the tumor. He could not but consider that some share of his success was due to the use of Wilson's clamp. He observed strict antisepsis, and among the first means in the list he placed the nail-brush and soap. He suggested that the discussion be confined to: 1, the advisability of reopening the abdomen for hemorrhage into the peritoneal cavity; 2, removal of the uterus for fibro-myoma; 3, the treatment of the pedicle.

Dr. C. C. Lee agreed with the author on the main points made. He would not give the operation of hysterectomy or other methods for the removal of fibroids of the uterus so wide a latitude as the author. Where there was any chance of arresting the nutrition of the tumor by removal of the uterine ap-

pendages in young women, he would always employ that method, for if a fibroid tumor were removed, others unseen might be present or develop subsequently. While Kieth had said exactly what Dr. Mann had attributed to him, yet in his prefatory remarks he had stated that removal of uterine fibroids could never be so promising a procedure as oophorectomy, because the conditions were so different. The speaker had never had occasion to regret opening the abdomen to check hemorrhage.

Dr. James B. Hunter said, with regard to the treatment of the pedicle or solid tumors, that he was strongly in favor of the plan advocated by Dr. Mann, viz., the external. He preferred the elastic ligature. Dr. Mann had been fortunate in seeing so many solid tumors. The speaker had diagnosticated and removed a solid tumor of the ovary within a year, the patient making a good recovery. He thought Dr. Mann should not have removed the clamp so soon, at least in some of the cases.

Dr. W. Gill Wylie thought there could be no question of the propriety of reopening the abdominal cavity in suspected hemorrhage; and he suggested that, when hemorrhage was feared, a drainage-tube be introduced and carefully watched. He had resorted to this precaution in one case, but the assistant did not examine the tube often enough, and before the hemorrhage was discovered the patient was nearly in collapse. The vessel was tied and the patient recovered. He thought with Mr. Mann that it was risky to tie the pedicle of a muscular tumor. As to the indications for the removal of solid tumors, definite rules could not be made. For instance, in one case he had found salpingitis complicating the fibroid of the uterus, and it would be difficult to say which condition was the chief cause of the woman's sufferings, and which should be removed. He would not hesitate to operate for a solid tumor any more than to operate for a cyst, if the symptoms demanded it. He preferred the *serre-nœud* to the elastic ligature and other measures. Instead of loosening it on the eighth or ninth day, he tightened it until it had gradually cut off the pedicle.

Dr. P. F. Mundé had operated in only two cases of solid tumor of the uterus, one being a fibroid weighing seventeen pounds, the other a myoma. In the first case the operation was performed because the patient had become addicted to opium for the relief of pain. The pedicle dropped off on the sixteenth day. In the second case separation of the adhesions led to rupture of the mesentery and intestine, and secondary hemorrhage took place twenty-four or thirty-six hours after the operation. The abdomen was reopened and the hemorrhage arrested, but the patient died of exhaustion in spite of the injection of a saline solution. As to the diagnosis in cases of myoma, it was not easy, but a myoma could be distinguished from an ovarian cyst by the thick abdominal walls; in cysts of the ovary of rapid development the walls were thin. We need not be in haste to operate for myomata of the uterus. Dr. Sims had recommended an operation in one case some years ago, but the patient refused, and was to-day in good health. He had met with several cases of solid ovarian tumors, but had not operated.

Dr. Mann said that, when he had removed the clamp on the eighth or ninth day, he had substituted for it an elastic ligature. He doubted whether Dr. Mundé's suggestion as to differential diagnosis would hold.—*N. Y. Medical Journal.*

Structure of the Uterine Artery.

The phenomena of sexual life in women necessarily involve frequent variations in the blood-supply to the uterus and ovaries. Professor Thomas has already noted the development of connective tissue in the tunica intima of arteries in relation to the mechanical conditions of the circulation. Dr. Westphalen, of Dorpat, has recently examined the uterine artery in order to see how the intima is arranged in that vessel. He discovered that in childhood the intima consists of endothelium and of an elastic membrane which forms folds like a ruff when the vessel is empty. Between these layers he found in places some elastic and muscular fibres, but very little connective tissue. At the height of sexual life, however, a very distinct and thick layer of this tissue could be detected in the intima. It increased in thickness as the vessel neared the uterus, and was most marked in women who were not very young and who had borne children. Similar histological conditions were detected by Dr. Westphalen in the intima of the ovarian artery, but in a much less marked degree. This disposition of the connective tissue in the intima must depend upon the physiological peculiarities of the part which is supplied by the uterine artery. A similar histological condition has been already noted in the splenic artery, a vessel which is also distributed to an organ subject to periods of physiological engorgement. Dr. Westphalen's researches appear in the form of a short note in the 106th volume of Virchow's *Archiv.*—*British Med. Jour.*

Diagnosis of Beginning Carcinoma of the Cervix.

Since experience has shown that beginning carcinoma of the cervix can be entirely cured by operation, it is important that family physicians send the patients to the specialist early. And in order to make at least a probable diagnosis without microscopic examination of an excised piece, C. H. STRATZ says that from his observation and that of others the important signs of carcinoma are as follows:

1. The diseased place is sharply limited by sound tissue, and never goes over into it by degrees.

2. A difference in the level of the whole diseased portion can always be made out.

3. Carcinomatous portions have always a light yellow color.

4. The malignant deposit is usually shown as finely granular, whitish-yellow glistening elevations, at least in individual places.—*Centralb. f. Chirurgie.*

Notes on the Plastic Surgery of the Vagina.

DR. CHARLES MEIGS WILSON, M. D. (*College and Clinical Record*):

The plastic surgery of the vagina comprises the operations of anterior and posterior elytrorrhaphy, perineorrhaphy, kolpoperineorrhaphy, kolpocleisis and the operation for the cure of fistulous openings into any of the adjacent viscera.

They are sometimes done also for the relief of procedentia uteri after amputation of the cervix, and more rarely after partial enucleation of the uterus for cancer. Infrequently, they are done coincidently with trachelorrhaphy. In all these cases, however, the object is the same, namely, to obtain proper support for the uterus. The operations consist in freshening a portion of the anterior or posterior vaginal wall, as the case may be, and approximating the edges of the denuded surface. For the anterior operation Sims' position is the best, the posterior vaginal wall being held back by a modified Sims' speculum, which brings the anterior wall promi-

nently into view after the vagina has become inflated or distended with air. The bladder should, of course, be empty, and the vagina perfectly clean. Cleanliness is accomplished by swabbing the parts with a solution of the bichloride of mercury, 1-1000, previous to making an incision upon the mucous membrane, or by having the nurse, prior to the operation give the patient a vaginal douche of equal strength. The plan of denudation, as described by Dr. Emmet, and known as the horseshoe denudation, has proven the most satisfactory in the author's hands; indeed, all other methods have yielded but temporary results, and with them the prolapse of the vaginal wall has always, at least partially, returned after the lapse of some time.

The sites of the three anterior points of denudation immediately in front of the anterior lip of the uterus, as outlined in Emmet's text-book, should be determined by the tension of the anterior vaginal wall, which is ascertained by hooking tenacula into the mucous membrane at the three points and bringing the tenacula together so as to see whether or not, when the three small points of denudation have been made and the stitches introduced, the denuded surfaces will come accurately together. The spots are then freshened with Emmet's scissors, the mucous membrane being hooked on tenacula and the adjacent surface of the vagina being steadied in the same way. In regard to the semicircular freshened areas extending from either side of the anterior fornix of the vagina nearly to the orifice of the urethra, the author has obtained the best results by following the plan pursued by Dr. Howard A. Kelly, of Philadelphia, who leaves the anterior portion of the freshened surface, as described by Dr. Emmet, undenuded immediately in front of the orifice of the urethra for a distance of one-third of an inch. By this method drainage is provided for the vaginal tissue puckered up between the two lines of denuded surface when they are approximated by the tightening of the sutures.

With reference to perineorrhaphy, the author has gained the best results by following the method of Dr. Emmet. It has been found that this method is particulary adapted to those cases where the laceration of the perineum has led to the formation of rectocele. Where however, the perineum has been torn through, and its restoration is the desideratum, rather than the obliteration of the rectocele, the best results have been obtained by the double triangular denudation of Hegar, the folding in of the freshened surface of the internal and greater triangle, restoring the vaginal portion of the perineal body, and the folding in of the freshened surface of the external and lesser triangle, giving the proper depth to the external surface of the perineal body between the posterior commissure and the anus. Where the tear of the perineum has involved the sphincter ani muscle, and has extended any distance up the recto-vaginal septum, the operation is attended with greater difficulty and is not so apt to give as good results. In cases of the latter class the parts are freshened, so that a set of rectal sutures are introduced as well as vaginal ones, restoring, as far as possible, the rectal portion of the perineal triangle to its original shape and position, as well as restoring the vaginal portion. Also, where the sphincter ani muscle has been involved in the tear, it has been found best to divide the sphincter muscle on either side under the mucous membrane in order to temporarily paralyze it or to prevent it from contracting, and also to

enable us to bring up the torn and attenuated ends of the muscles, in order that we may freshen them and properly approximate the freshened surfaces at the upper portion. Failure to make these incisions of the sphincter muscle oftentimes is the cause of the failure of the operation.

For freshening the surfaces for perineorrhaphy, whatever kind of denudation is preferred, Emmet's right and left lesser curved scissors are found most serviceable, the tissues being held by small tenacula, the holding arms of which are placed at right angles to the handles, and the holding arms, likewise, having no curvature. With these instruments it is not necessary to lift the recto-vaginal septum with the finger in the rectum, and with them the denudation can be quickly and safely performed.

The author has never had but one case in which kolpocleisis, or complete closure of the vagina, was indicated. This was in the case of a woman, seventy years of age, who had complete procidenti uteri, the bladder and rectum protruding through the vaginal orifice. It was determined to close the vagina in this case because of the enormous number of sutures combined elytrorrhaphy and trachelorrhaphy would have necessitated had they been done. The case was a completete success; but as one case is of small value, the author prefers to hold his views in abeyance with regard to this procedure.

DISEASES OF CHILDREN.

Diagnosis of the Initial Period of Febrile Diseases in Children.

The number of febrile diseases to which children are susceptible, being so much greater in children than in adults, and children being also much more susceptible to such diseases than adults, their diagnosis becomes a matter of great importance, and it is sometimes a matter of difficulty. The difficulty is increased by the frequency with which children are attacked by ephemeral febrile conditions, by their inability to express their feelings, etc. With care and some experience, however, a fever may usually be diagnosticated between the first and third days. The first question to be considered is, whether the febrile condition is a symptom of a local trouble or whether it is a general disease. The patient should be examined over the entire surface of his body, and if an eruption is present, one should differentiate between an inflammatory disease of the skin and a general exanthematous disease. The diagnostic symptoms of the various forms of dermatitis which are accompanied by eruptions are then detailed. Acute swellings of the lymphatic glands may cause fever, which may last from five to ten days. This condition most frequently occurs between the second and fourth years of life, and is due to idiopathic inflammation of the glands at the upper end of the sterno-mastoid muscle, under the ear, under the mastoid process, and behind the angle of the jaw. It is not due to eczema of the head, discharges from the ear, inflammation of the vertebral column, no carious teeth. The swelling may continue two to three weeks, and is not usually attended by suppuration nor by inflammation of surrounding tissues. It is unilaterial in distinction from mumps, which is usually bilateral. The fever of mumps does not usually exceed 39° C., while in the glandular fever it usually reaches 39.5° to 40°. In examining for fever, the ears must be thoroughly investigated, as inflammation of the external, middle, or outer portions may give rise to it; or it may be due to furuncles at or near the external meatus,

or to swelling of the glands behind the ear. Acute coryza is of great significance, not only because it is very common, but because it is the initial symptom of the ordinary cold in the head, primary nasal diphtheria, influenza, and measles. Ordinary coryza is distinguished from diphtheritic (1) by the character of the epidemic. Diphtheria usually begins in a family in the laryngeal form, and when communicated to the other children may take the nasal form, especially when communicated to infants. Simple coryza may attack several in a family at the same time; adults as well as children. It may or may not be accompained with fever, cough, etc. (2) Primary nasal diphtheria is usually limited to infants, while no age is exempt from coryza. (3) The temperature in nasal diphtheria is usually no higher than in coryza, but in the former the child is pale and the eyes heavy; in coryza there may be high temperature, but the child does not show great depression. (4) Nasal diphtheria seldom begins on the alæ, and there may be mucous discharges in both diseases, but in diphtheria it is usually very irritating, and the mucous membrane is easily wounded; the glands of the lower jaw are also usually swollen in the latter disease. In scarlet fever we may have similar symptoms, but they usually appear after the eruption has announced itself. If the febrile coryza is accompanied by conjunctivitis and cough, measles and epidemic catarrh should suggest themselves.

Of the diseases of the mouth, stomatitis erythematosa, stomatitis aphthosa, and stomacace are accompained by fever, and are very often indicative of irritation from the eruption of the teeth. Investigation of the throat in febrile conditions is always necessary for evidence of swelling, congestion, and with the finger if retropharyngeal abscess is suspected. The usual rules for examination of the lungs when fever is present need not be repeated; but in heart diseases there may be no symptoms apparent. Rise of temperature during the period of lysis, or a recurrence of the same during convalescence, are usually due to complications, among which endocarditis must be considered. Of the febrile diseases of the abdominal organs, gastric fever is noteworthy. It may be acute or subacute. The former may have a temperature of 40° C. or more, may be accompained by vomiting and diarrhœa, and is usually due to errors of diet. In the subacute form there are generally loss of appetite, headache, general malaise, somnolence, possibly slight fever and jaundice, and seldom vomiting and diarrhœa. It is sometimes mistaken for tuberculous inflammation of the brain. Herpes labialis is almost always a symptom accompanying subacute gastritis, and almost never occurs with the tubercular disease.—*Arch. f. Kind.—Archives Pediatrics.*

The Temperature of Young Children in Health and Disease.

Fallacies in diagnosis are likely to result if too much stress is taken upon a single taking of the temperature. Considerable variation exists within the limits of health, and even more from trivial causes. The observations of the writer were made on children under six years, not infants, and were of three classes.

1. Those recovering from some acute disease, observations being carried on during convalescence.

2. Children in a convalescent home, but apparently well.

3. Strong and robust children in the country, in perfect health.

In the first class the observations were made in many cases hourly. They

all showed that the temperature varied irregularly and without apparent reason. The daily range amounted usually to two degrees, but in some was more than this. The afternoon rise was often absent, and in many instances the temperature was sub-normal.

In the second class of cases no appreciable variation existed between 9 A.M. and 6 P.M.; this conclusion being the same as that reached by Finlayson.

In the third class, two stout boys, the axillary temperature was taken frequently between 10 A.M. and midnight. The older child, who could run about, had a more uniformly low temperature than the one who could only stand. The highest register was about 10 A.M., and the lowest in the evening. The range was from 97.3° to 98.6°.

The conclusions reached are that the normal temperature of young children does not differ much from adults in its range or hight. It is, however, less stable, and when disturbed it takes a longer time to settle down. It is possible, however, that some of these convalescent variations may be caused by enlargement of bronchial or mesenteric glands or other insidious changes, and that perhaps after all an equable temperature record is a nice test of return to perfect health.

In disease the writer points out that one of the characteristics of a child's pyrexia is its liability to sudden and temporary remissions. Records made morning and evening only are often quite misleading. These remissions are frequently seen in typhoid and lobar pneumonia. In the former disease they often are well marked in the second week and thus the temperature-curve as a means of diagnosis between typhoid and tuberculosis may be of very little value.

In bronchitis and broncho-pneumonia the temperature is usually of an irregularly intermittent type, and is of doubtful value either in prognosis or diagnosis from intercurrent tuberculosis.

What then does the thermometer teach? A pyrexia is good when it is lower in the morning than in the evening; when the variations from day to day are but slight; when but a single fall occurs in twenty-four hours, and whose lowest morning level is near the normal line.

On the contrary, a pyrexia is bad when highest in the morning, which rises during the night; when there are two or three ascents during the day; which is maintained steadily at a point at or above 103°. The temperature in children, as in adults, gives the first warning of mischief after operations.—*Medical Chronicle.—Archives Pediatrics.*

Treatment of Dysentery in Children.

SIMON gives the following prescriptions for this affection: ℞. Sod. bicarbon., gr. viij; magnesiæ, gr. xxx; colombo, gr. v; nucis. vom. pulv., gr. jss; pulv. aromatic, gr. xv. M. Div. in chart. xx. in num. Sig. One powder before the two principal meals, in water or mixed with non-leavened bread.

If this is badly taken, the following may be substituted: ℞. Tinct. quinquiniæ, ℈iv; tinct. rhei., ♏xxx; tinct. colombo, ♏xxx; tinct. nucis vomicæ, ♏viij; of which doses of five or ten drops should be given before each meal, either in cold water or water charged with wine of quiniæ.

The diet should be reduced to pulp: eggs, meat pulp, beans carefully boiled and thoroughly mashed; starches in form of purée of potatoes.—*Nouv. Remèdes.*

Carbolic Acid Inhalations in Whooping Cough.

In the *Deutsche Med. Wochenschrift*, DR. R. PICK, of Koblentz, published

several cases which seem to show that the inhalation of concentrated carbolic acid solutions has a powerful curative action in whooping-cough. Dr. Kniaziolucki, of St. Zofia's Hospital in Lvov, in Galicia (*Wiadomosis Lekarskie*), accordingly tried the same method in a severe case of his own occurring in a weak, emaciated, febrile girl, aged 9. The affection had lasted for about four weeks, and the paroxysms occurred about twenty-eight times a day. The inhalations of carbolic acid, either pure or diluted with an equal amount of distilled water, were repeated hourly, the administration being continued for ten minutes on each occasion. The number of paroxysms during the subsequent days fell to 20, 19, 12, 12, 6 respectively, and from the sixth day of the treatment the patient had not a single attack. The temperature became normal on the third day. After ten days' stay in the hospital the girl was discharged quite well. No poisonous symptoms were observed either in this case or in those related by Dr. Pick. Equally satisfactory results were obtained by Dr. W. Jakobski, of Odessa (*Wiadomosis Lekarskie*), who used a 50 per cent. solution of the acid, the inhalations being carried out for ten minutes every two hours. In one of his cases the daily number of paroxysms fell rapidly from thirty-two to six. Dr. Jakobski differs from Pick and Kniaziolucki only as regard the details of the method. They principally employ a mask resembling that used for giving chloroform; this is placed over the patient's nose and mouth. Dr. Jakobski, on the other hand, finding that this apparatus frightened children and led them to resist the application, devised an instrument like a toy, consisting of a pasteboard tube with gold paper gummed over it, and fitted with a handle. Within the tube are two thread nets, and between them a layer of Bruns' cotton-wool, which is moistened with the carbolic solution. Jakobski found that with this there was no difficulty in getting the little patients to take the inhalations.—*British Med. Journal.*

OBSTETRICS.

Abdominal Section Done for Ectopic Gestation.

DR. JOSEPH PRICE (*Medical and Surgical Reporter*) :

Name of patient, Mary Fultz (white). 1. Date of operation, Wednesday, March 30th, 1887. 2. Age of woman, 37 years. 3. Number of normal pregnancies, 4,—3 males, 1 female. 4. Length of survival of woman, 14 days. 5. Length of survival of child, 4 hours. 6. Duration of gestation about 7½ months. 7. Cause of death, hemorrhage, due to walking and straining while on the commode. She was an intractable subject.

Points of Interest.—Beginning as a right tubal pregnancy, with a history of pain, shock and high temperature, indicating rupture of tube at about the fourth month, from which she recovered in a few days; subsequently her condition improved until within about two weeks prior to the operation, when she had paroxysms of pain, which required the free use of opium; this continued up to the time of the operation.

Examination.—She was small-boned and greatly emaciated. Palpation showed symmetrical tumor only to be felt; vaginal—thin sack wall low down and posterior through which the extremities of the child were easily felt ; cervix high up and pushed far forward; the diagnosis of " extra uterine pregnancy " had been made by her physician, Dr. Donges.

Operation.—Short incision, free discharge of bloody serum, uterus only to be seen and felt, flattened out to about

six inches, forming the anterior wall of the sac. A distinct sulcus between the fundus and sac. Sac punctured in the region of the left ovary, an active female child delivered, cord severed between compression forceps, uterus contracted rapidly, forming a perfect uterine ovoid about the size of a fist, the sack also contracted rapidly. General intestinal adhesions to posterior surface of sac and uterus and laterally. The rapid contraction of the uterus and friable sac and almost general placental attachment rendered the stitching of sac to abdominal opening most difficult; the intestines at the upper surface of the sac were stitched to the abdominal wall.

After Treatment.—Drainage and free irrigation. The wound remained healthy and clean, large quantities of placental tissue washed away daily, patient remained free of pain, and her general condition was good until she persisted in getting out of bed that she might use the commode and not the bed-pan.

Notes of post-mortem made by DR. CHAS. B. PENROSE: The abdominal incision was united throughout. The adhesions between the sac and the abdominal walls were firm, with the exception of the upper part, where the adhesions had yielded, and a loop of small intestine about five inches in length had slipped from above into the abdominal opening. About six ounces of clotted blood were found in the peritoneal cavity. There were no signs of peritonitis. The intestines were pale and bloodless. The uterus was enlarged and flattened against the anterior abdominal wall. The remains of the placenta presented at the lower right side, and were about the size of a small fist. The placenta was adherent to the posterior surface of the uterus, to the left ovary, to the posterior surface of the right broad ligament, to the right side of the pelvis, to a portion of the ilium and of the large intestine. A corpus-luteum was found in the right ovary. The outer half of the right Fallopian tube, if present was not removed. No examination was made of the other parts of the body.

Retention of Fetal Membranes.

In the *Jürnal Akürsherstvr i Jens. kikh Bolernei*, Professor I. P. Lavarevitch, of Kharkov, discussing this subject, arrives at these conclusions: 1. Retention of the decidua with the chorion is a common occurrence, and has no special importance. 2. On the other hand, retention of the amnion or of portions of the placenta occur but rarely, and are apt to give rise to dangerous symptoms, such as decomposition leading to inflammatory œdema, swelling and softening of the uterine walls, lochiometria, etc. 3. The conditions tending to produce retention of the decidua with the chorion are the following: (*a*) late rupture of the fetal membranes; (*b*) their adhesion to the wall of the uterus owing to the overgrowth of the chorionic villi at some spot, to decidual hemorrhage, giving rise to fibrous adhesion, or to endometritis and choritis, etc.; (*c*) their early separation from the amnion; (*d*) finally, their abnormal friability. 4. Retention of the amnion, on the other hand, is favored by an early rupture of the fetal membranes, by a low situation of the placenta, by operative manipulations within the uterine cavity, by anteflexion of the womb, by thinness, congenital or pathological, of the membrane in question, and by adhesion. To prevent retention of fetal membranes, Professor Lazarevitch recommends that the placenta should be removed only after straightening the womb (which bends forwards after expulsion of the fetus).—*British Medical Journal.*

DISEASES OF WOMEN.

A Study of the Causes and Treatment of Uterine Displacements.

In a paper with this title, Dr. THOMAS ADDIS EMMET, of New York, considered displacements, properly so called, as distinguished from mere changes in the attitude of the uterus. It was to alterations in the situation of the organ, he said, rather than to any of the varieties of anteversion, retroversion, or lateroversion—and particularly to its decided deviation above or below "the health line," as he had pointed out several years before—that the symptoms depended on disturbance of the circulatory balance in the pelvis were to be referred. There were certain other symptoms, such as those due to traction on the *bas-fond* of the bladder, that might occur as accompaniments of a version, but the far more distressing and persistent manifestations caused by interference with the pelvic circulation were, as had been stated, brought about by changes in the situation of the uterus. This could be demonstrated by a very simple test: if, on examining a patient with prolapse of the uterus in the dorsal posture, some branch of the circular artery was distinctly felt pulsating, and the patient would feel a sense of relief when the uterus was lifted to the "health line," and the pulsation would gradually cease if the organ was held in that position for a few minutes. On the other hand, if we raise the uterus too much, disturbance took place again; this afforded the explanation of the relief often given by removing a pessary that was so long in its posterior curve as to raise the uterus beyond the proper height. The anatomical disposition of the blood-vessels was such that a certain degree of traction exerted upon them embarrassed the return flow of blood through the veins while a certain other degree of traction finally interfered with the afflux of blood through the arteries. In the treatment, therefore, the important point was to do away with all traction dependent on a displacement, without regard to the attitude of the uterus, and this could sometimes be accomplished with a retroversion pessary, although the organ might be anteverted. As to the agency of extra-uterine pelvic inflammation in producing displacements, the greater was the extent of the primary cellulitis, the more likely was a decided displacement to take place; but an inflammation confined chiefly to the peritonæum might draw the uterus either up or down, according to the situation and extent of the inflammation, and every version which was not the consequence of an injury or a new growth was caused by pelvic peritonitis. The uterine attachment of the Fallopian tube was somewhat higher than the insertion of the broad ligament into the side of the pelvis, so that the contraction following an inflammation confined chiefly to the peritoneal covering of the tube would have the effect of dragging the uterus down in the pelvis; on the other hand, if the inflammation had begun below, and extended along the connective tissue between the folds of the broad ligament to the peritonæum above, the uterus would be lifted in the pelvis in proportion as the peritonæum became involved and adhesions were formed above. When, after an extensive cellulitis within the folds of the broad ligament, the connective tissue there situated had been destroyed, and the inflammation extended to the peritonæum and led to adhesion of the opposing surface of Douglas's *cul-de-sac*, the uterus was necessarily lifted. Then, in proportion as the layers of the

broad ligament were separated or flattened and the vagina was ballooned out, would the side of the uterus be drawn upward toward the Fallopian tube of the same side. Thus it was that a lateral version took place as a permanent deformity, and not by shortening of the broad ligament, as was commonly thought. On the other hand, when the connective tissue between the folds of the broad ligament had not been involved, adhesion of the walls of Douglas's *cul-de-sac* would cause prolapse and retroversion. When the inflammation had been confined chiefly to the utero-sacral ligaments, the uterus would become anteverted and the cervix lifted in proportion to the extent of adhesion between the surfaces involved. A peritonitis limited to the lower part of the anterior fold of the broad ligament would retrovert the uterus by lifting the cervix, after the manner of a small fibroid at that situation; but where the inflammation had been more extended, and had led to broader adhesions, the uterus would finally become extremely anteverted and prolapsed.

The author then gave a brief *résumé* of his views of the importance of the pelvic fascia as a support to the contents of the pelvis, and repeated that to the loss of this support, rather than to rupture of the "perineal body," were to be attributed the uterine prolapse, proctocele, etc., that so often took place as the consequence of injury during parturition. Returning to the subject of pessaries, he said that the whole art of their successful application lay in so regulating their size and shape so as to enable them to act none too little and none too much on the overstretched tissues within the pelvis; thus the needed support would be restored, and it was only when this had been accomplished that the pelvic circulation could be kept within its proper limits and the patient relieved. The instrument was of benefit indirectly by diminishing congestion and correcting prolapse, and not by merely overcoming a version. Where a displaced uterus was free from peritoneal adhesions, its replacement, followed by suitable support to the fascia, would result in its being retained in proper position. Atmospheric pressure in the knee-chest posture would accomplish this for the time being, and the weight of the water of the vaginal injection, properly administered, with the patient lying on her back and having her hips elevated, acted in the same manner, by uniform pressure; but the effect was only temporary. For years past, his daily practice had been to insert glycerined cotton wads in such a position that they would lift the uterus like a crutch, and thus overcome tension along some line of shortening due to inflammation; but he never used more than was necessary to correct the prolapse. This mode of treatment had recently been advocated, but without a full recognition of the principle on which it acted. If the cotton pledgets were applied with the patient in the knee-chest posture and the vagina fully distended, and if the large quantity of cotton recommended was packed in, the practice was more likely to prove a source of irritation than of benefit. The author fully realized that his views might be misunderstood, and that it might be said hereafter that he did not approve of the use of pessaries; he therefore wished to state distinctly his belief that nothing could take the place of a pessary when properly fitted and when used in the proper class of cases, but he did think that the field of usefulness of the instrument was much more limited than

was generally supposed. When it came to be recognized that a displacement of the uterus was merely a symptom, pessaries would be used more intelligently; less harm would then be done by their improper use, and those who now denounced them would become convinced of their great efficacy. No attempt should be made to correct a displacement so long as there was any evidence of recent inflammation in the neighborhood; at present, efforts in this direction—perhaps with the dangerous aid of the sound or the elevator—were too often made where sufficient means of detecting such evidence, especially by rectal examination, had been neglected.

On the Treatment of the Pedicle in Supra-Vaginal Hysterectomy.

Dr. George Granville Bantock, of London, an honorary member, read a paper on this subject. He recited that part of his personal experience which had led him to adopt certain measures and to reject others in the treatment of the pedicle in supravaginal hysterectomy. In one case the actual cautery was applied to the stump to check hemorrhage, but, on removing the ligature, hemorrhage took place as if from a wound made with a knife. In another case copper wire was drawn around the pedicle, but he learned that wire made of copper was not able to bear the strain. Steel wire was too difficult to manipulate. Iron was then employed. A further step was to trim the stump, and stitch the peritoneal tissue over its surface. He further learned never to cut away the tumor until the pedicle had been transfixed with supporting pins. In his eighty-fifth case he introduced another important modification. The *serre-nœud* was put on just below the level of the ovaries, the broad ligament being seized between the ovaries and the uterus. The peritonæum and tumor were divided all round a short distance from the wire loop, the instrument was now screwed up, tension was removed from the uterine aspect (no difficulty was experienced in holding it), pins were put in, a *serre-nœud* was put on behind the pins, and the first was then removed, enabling him in this way to gain about half an inch on the pedicle. One should seek to get a long pedicle, and relieve the strain on the broad ligaments and dragging on the supporting pins. If the broad ligaments or the peritoneal covering appeared to be redundant, the operator should remember not to cut away any until he was ready to stitch it over the stump. The intraperitoneal method of treating the stump had been held up as the ideal method, but as a matter of fact we were not yet able practically to adopt an ideal method. Dropping the stump had in his hands proved about as uniformly disastrous as the extraperitoneal method of treating it had proved successful. He had employed the former method in two cases, both of which proved fatal. In some cases the broad ligaments were so long and the ovaries so easily lifted out of the pelvis that it was a simple matter to include the whole in a loop. Or one ovary might be included in the loop, while the other had to be secured separately, or both might have to be secured separately. The tumor might be situated so low as to render it necessary to separate it from the peritoneal envelope before sufficient pedicle could be obtained. As to the after-treatment of the pedicle, it should be thoroughly protected with gauze, and then the less it was interfered with the better. The prime object was to get the stump dry. As soon as the dressings became moist they should be changed. Perchloride of iron should not be applied; it was unnecessary, and

might be injurious. In regard to tightening of the instrument, very little interference would be required. If the pedicle was very thick, it would probably be necessary to tighten the instrument. There should be no hurry to get rid of the stump so long as it remained dry. If pus appeared, measures should be taken to give it free discharge. He had performed supravaginal hysterectomy fifty-seven times, with forty-five recoveries and twelve deaths. In only two of the twelve was the death due to peritonitis and septicæmia. Of hysterectomies for the removal of pedunculated fibroid, thirteen cases had been treated by the extraperitoneal method, all of which had ended in recovery. Two cases in which enucleation was practiced and the extraperitoneal method carried out, had both ended in recovery. In five cases treated by the intraperitoneal method, one patient had recovered and four had died. The discussion of this paper was postponed. —*New York Medical Journal.*

Support in the Treatment of Ovaries and Tubes.

Dr. Sarah E. Post, in an article published recently in the *N. Y. Medical Journal*, says substantially :

Methods of Obtaining Support.—In Dr. Parvin's edition to Professor Winckel's work a suitable pessary is recommended, but, while ninety-seven pages are given to dislocations of the uterus, the pessary suitable for the support of ovaries it is not described. Dr. Thomas also says that where diseased ovaries are prolapsed, they should be supported upon a pessary ; but he, also, does not particularize in regard to it. Dr.C.H. May, in his admirable compend, states that Thomas's bulb pessary, Emmet's, Noeggerath's, and others may be used. Mr. Tait has a wedge pessary, or one with a broad posterior bar. To use an old simile, one might as well try to poise a piece of ice on the finger tips as to try to hold up an ovary with one of these hard rubber rings. Support is not a failure because unobtainable by such means. The dispensary connected with the Woman's College has an attendance of from thirty to fifty gynæcological patients daily. Among these are many of ovarian displacement, hyperæsthesia, and actual disease. Such cases are not there, however, considered less hopeful nor more difficult to handle than others ; and for many years support has been the routine treatment, the cotton tampon being used. This is commonly applied in the knee-chest position. Personally I prefer the Sims position, and I used three or four small pads instead of one larger one. With the Sims speculum retracting the perinæum, I carry in the first, using the finger instead of the dressing forceps for this purpose. Then, with the finger retaining the pad, I withdraw the speculum, assure myself that the pad is well up in place, re-introduce the blade in front of it, and pass in another to one side or the other, as required. Having packed all into a secure position, I last place one in front and against the pubes to give leverage and support. Where the ovary is not adherent, immediate relief is, as a rule, obtained. Recently, in a case of this kind, after the application of the tampon, I asked : "Do you still feel pain?" "A little," the patient replied. Placing her again upon the table, it was found that the painful ovary had not been completely held up, and another pledget of cotton, passed along the side of the others so as to lift it, gave relief. Such a tampon will stay in place twenty-four hours. After some weeks the tenderness commonly diminishes, and the pain during

the intervals is not so great. Finally, at the end of some months, the treatment can be suspended. Operation upon a fissured cervix often hastens the cure.

As a further means of support of ovaries I have recently used the old inflated ring pessary. In my previous paper I stated some objections to this pessary as manufactured here. Accidentally, or with intention, the central aperture is made smaller as the total diameter is increased. In Nos. 1 and 2 there is a hole which easily accommodates the cervix. In Nos. 3 and 4 it is smaller, but not so diminished as to afford a serious obstacle to use. In Nos. 5 and 7, on the contrary, the hole is absurdly small. Professor Winkel makes a similar complaint of this pessary in Dr. Parvin's edition of his book. I am pleased to announce that Stohlmann, Pfarre & Co., of East Twenty-eighth Street, have modified these larger sizes according to my suggestion.

It is now one year since the paper referred to was written, and two years since I commenced using this ring. Additional experience but confirms my belief in its value. In the case of the fissured cervix it acts as a splint. A colleague informs me that recently a cervical catarrh which would have lasted for months under the usual local applications disappeared in three weeks while the patient was wearing this ring. Another tells me that it was prescribed as a preparation for operation in the case of a deeply fissured cervix, with catarrh, and that under its use the separated parts had spontaneously united up to the external os.

The most brilliant results of this pessary are, however, obtained in the treatment of the prolapsed ovaries. Several typical cases can be referred to.

CASE I.—A woman of twenty-five years came to the Demilt Dispensary announcing that she had ovarian disease. She had had many physicians, and had been well instructed in regard to her case. She had suffered from migraine since puberty, and had married upon advice, in the hope that maternity would effect a cure. At the time of my first observation she had been married for three years, pregnancy had not occurred, and her distress had been aggravated rather than relieved. She had constant hypogastric and inguinal pain. Intercourse was unbearable, excepting just after the menstrual period. She found it difficult to endure the jolting of the cars and painful to walk, especially if jarred unexpectedly by stepping upon a stone. Menstruation was profuse, lasting a week, and headaches were almost constant, with special aggravations just before the flow. Examination showed latterly two large sensitive ovaries, and posteriorly a smaller mass continuous with the left tube. The ovaries were moveable, but the posterior mass adhered. The uterus was in place. A diagnosis of chronic oophoritis was made. The tube was not enlarged, but simply displaced and adherent. This patient had recently been under the care of a distinguished gynæcologist, visiting him at his office with considerable regularity during nine months. It would be but fair to state that she had had exceptional opportunities for obtaining relief. Hot injections were ordered, although the woman stated that they had already been persistently used. On September 1st an air ring was inserted. For the first few days it gave pain in the left side, but from the first some relief of headache was obtained.

September 10th.—She stated that she was almost comfortable.

October 29th.—She stated that at her last period she had had one hour of her

old inguinal pain, and headache for one day, but that otherwise she had felt well. Her mother noticed that she did not "grumble so much." At the end of three months she menstruated only two or three days, and her headaches had been reduced to a few hours just before the flow. Distress upon intercourse had ceased. Examination showed the ovaries still easily reached, but much less sensitive; the posterior mass still adhered, and the tube had elongated so as to arch over the ring. At the present time the patient feels perfectly well, can do her housework, and can go without the ring for a week without any return of her former symptoms. She no longer wears it constantly, but keeps one on hand and inserts it when she thinks a headache is threatened. Though anxious for children, her sterility continues. She is, however, happier than the woman in the case of operation cited.

Case II. is that of an unmarried woman of twenty-five years who, one year ago, while lifting a mattress, was seized with pain which for three days kept her in bed. Since that time she had suffered excessively with dysmenorrhœa and inguinal pain. She had emaciated, her appetite had been lost, and from a happy, rosy cheeked girl she had become a pale, weary, hollow eyed woman. Examination showed a perfect hymen, and with difficulty a retroflexed uterus and two enlarged, prolapsed ovaries were made out. Here, too, hot injections were used, and after a time pads, which always made her temporarily comfortable. They could only be worn a day, however, and during the intervals between their application all of her pains returned, and she was becoming discouraged, when recently, after three months preparatory treatment, a No. 3 air pessary was inserted. The relief was immediate, and with it in position she has menstruated for the first time without pain. The uterus is still retroflexed, the fundus lying upon the posterior bar, but sufficiently elevated, so that a free exit is secured. Hard rubber retroflexion rings were tried several times in this case, but the posterior bar always took its position in the angle of the flexion, her sufferings were increased, and inflammatory action threatened.

While the history is not yet complete, I give this case because it is the first case of an unmarried woman in which I have used this ring. Two other similar cases might now be given. In all three the hymen was perfect, and the theory of masturbation as a cause of the retroflexion could not be entertained. All are working women, and it is believed that treatment which restores health will be in itself less likely to induce this practice than a continuation of their disease. In treating these unmarried women I am particularly careful to be business like—to not unnecessarily prolong an examination or the manipulation necessary for treatment, and to discontinue douches and home attention as soon as possible. An operating table should, in treatment, be preferred to a chair or bed, because not associated with the ordinary routine of life.

These two cases also fairly well represent two classes of ovarian prolapse—Case I., that in which the uterus holds its position, the prolapse being congenital or due to the disease *per se;* and the second, that induced by uterine dislocation. In both, support is the essential element in treatment, although in both, hot water, iodine, and glycerine were used. I am able to present also a third case representing the adherent ovary. Here the problem is more difficult and a general rule can not be given.

Salpingitis.—Thus far my recommendation of support has been in harmony

with the teachings of the books, differing from these only in the method employed and in the high estimate which I place upon it. In recommending the extension of this support to prolapsed and catarrhal tubes, I, however, realize that I am advancing a new procedure, and that results only can justify me. The problem is more complicated, too, as salpingitis is commonly associated with peritonitis in either its acute or chronic form. Will this congested adherent mass brook interference? In the acute stage it certainly will not. Where there is elevation of temperature, and yet the symptoms do not demand operation, rest, opium, and antiphlogistic treatment, according to the indications, must be used. Complete resolution may result. Martin has seen pregnancy after such an attack in some cases. In others, however, the inflamed broad ligament rolls backward so that the fimbriated end of the tube lies in Douglas's pouch, where a matting of lymph or inflammatory adhesions ultimately binds it down. It remains there, discharging into the peritoneal cavity in some cases, and in others, where the abdominal opening is closed, never fully emptying at all, but having a periodic discharge through the uterus about the menstrual period, somewhat after the manner of the siphonized underground springs figured in the geographies of our youth. More or less decomposition of the secretion occurs, and the discharge is said to smell bad. Endometris, and even vaginitis, may secondarily result.

Santonin in Amenorrhœa.

Dr. Walter Whitehead, Surgeon to the Manchester Royal Infirmary:

At the risk of being regarded premature I wish to attract early attention to the therapeutic value of santonin in the treatment of some forms of amenorrhœa, especially when associated with chloro-anæmia.

Some years ago, during my attendance upon a young lady of seventeen, suffering from an obstinate ingrowth of a toe-nail, it was incidentally mentioned that the patient had symptoms suggestive of worms. I prescribed ten-grain doses of santonin to be taken for two consecutive nights, and to be followed each morning by a seidlitz powder. No worms, however, made their appearance, but a few days afterwards I was casually told that menstruation, which had been in abeyance for several months, had again taken place, and in a much more healthy manner than formerly. The coincidence did not impress me at the time, and I never for a moment supposed that the reappearance of the catemenia had the most remote connection with the two doses of santonin. The subject did not cross my mind again till upwards of twelve months afterwards, when one day, whilst prescribing for a young girl suffering from ozæna, I was forcibly struck with her chloro-anæmic appearance. Influenced by some impulse—"the association of ideas"—I ordered santonin in the same manner and in the same doses as in the previous case, and much to my surprise I must confess, with the same results. I have frequently since administered santonin in amenorrhœa with almost universal success, and in many cases after the ordinary remedies, including the permanganate of potash, had been tried in vain. I must admit that I have not had an opportunity in any of my cases to investigate the concurrent uterine pathological condition. I have simply given the drug empirically to all patients who have come under my notice suffering from amenorrhœa, with expectant uncertainty. My immediate object is to submit my brief

experience to the profession, in the hope that the experience of others may shortly test the potent or valueless influence of the drug in this particular derangement.

One of my cases is, perhaps, worth brief mention, as illustrating in a marked degree the class of cases so frequently brought under professional observation, and one that has received remarkable benefit from the drug. The patient was a young lady sixteen years of age. She was the daughter of an elderly, drunken father, and she had a rheumatic mother. I saw her first when suffering from symptoms which, at the time, were attributed to ulceration of the stomach, fixed pain, anorexia, rejection of food, general physical prostration, and lassitude. She had alarming attacks of prolonged faintness, shortness of breath upon the slighest exertion, and obstinate constipation. Her expression was characteristically that of chloro-anæmia, and she was emaciated to the last degree. Confinement to bed, and nutritive enemata, exclusively used for alimentation for two months, restored the digestive organs to the tolerance of simple food; santonin promptly corrected the menstrual function, and at the same time appeared like magic to restore the patient to robust health. Ever since any omission of the period has been immediately rectified by a single dose of santonin.

In cases of chloro-anæmia, subordinate to amenorrhœa, the drug appears to be of the most signal value, as I have invariably noticed that with the return of menstruation, or a discharge of blood from the vagina equivalent in effect, every symptom has rapidly subsided. The mere discharge of blood immediately following the administration of the drug will not, I suppose, be accepted by some as normal menstruation, but as a fictitious substitute; it must, however, be admitted that the practical value is established, when the discharge, be it vicarious or otherwise, is followed by the amelioration of the chloro-anæmia, which in reality constitutes the pressing ailment we have to contend with, rather than the mere absence of menstruation.

Whether santonin, or any other drug, is in a true sense a genuine emmenagogue, is very doubtful, for if we regard menstruation as coincident with ovulation, and ovulation the periodic rupture of a Graafian follicle, we cannot expect the ovaries to assume this complex physiological process of definite periodic rotation at will; nevertheless, if a single dose of santonin will immediately produce the apparently normal performance of the function, together with other consensual phenomena, when they have been dormant for several months, it is entitled to some further distinction in the Pharmacopœia than that of being simply a vermifuge. It would be necessary to accept a theory that ovulation could at a certain stage be temporarily suspended, and capable of being immediately accelerated under the influence of certain induced conditions, before we could acknowledge the action of santonin as a true emmenagogue.—*Manchester Lancet.—Medical Age.*

Pruritus of the Female Genitals.

The following formula is recommended by Meigs for pruritus vulvæ: ℞. Boracis, ʒ iv; morphinæ hydrochlor., gr. vi; aquæ rosæ, ℥ viss. M. Sig.—Bathe the parts affected.

Between the applications, lycopodium or starch flower may be dusted upon the affected parts.

Vaneedem's prescription is: ℞. Chloroform; sulphuris; sodii carbonatis, āā ʒiv; morphinæ acetatis, gr. vi; vaseline, ʒ v. M. Ft. ungt. Sig.—Rub upon the parts.

Lebert's formula is as follows: ℞. Hydrargyri bichlor., gr. viij–gr. xvi; spt. camphoræ, f ʒ viiss; aquæ destill., f ℥ x. M. S.—Bathe twice daily with the lotion.

For pruritus of the perineum, Hancke gives the following prescription, to be applied by the means of a sponge every two hours. For pruritus of the vulvæ, dilute four-fold: ℞. Iodi., gr. xv; potass. iodidi, gr. xl; dissolve in aquæ dest., f ℥ v; add alcohol dil., ʒ viiss.

Pleuck's salve for pruritus pudendorum is made of the following: ℞. Ungt. hydrargyri nitratis, ʒ viiss; hydrargyri oxidi rub., gr. xx; adipis, ʒ iv. M.—ft. ungt.

Cazenave prescribes: ℞. Zinci oxidi, ʒ ss; camphoræ, gr. viii; amyli, ʒ viiss. M.—ft. pulvis. Sig.—Dust upon the parts.

Dr. Thomas, in cases of pruritus due to vaginal leucorrhœa, advises vaginal injections of the biborate of sodium in solution, and once or twice a week he cleanses the cervix thoroughly of mucus and applies the nitrate of silver occasionally; chemically pure nitric acid is used with the hope of altering the secretion. Copious injections of water are continually used, and a suppository of cocoa-butter containing gr. v. of tannic or gallic acid, is placed against the cervix twice daily.

Trousseau recommends a solution carbonate of potassium (ʒ iii–f ℥ iv) for pruritus vulvæ. A formula advised by Fox is follows: ℞. Acetate of ammonia ℥ j; dilute prussic acid, ʒ iss; infusion of tobacco, ℥ viij. M. Sig.—To be sponged on the part twice a day in pruritus ani or p. vulvæ.

Bartholow recommends the following lotion: ℞. Hydrargyri chlor. corros., 1 part; alum, 20 parts; starch, 100 parts; water 2,500 parts.

In case the pruritus comes from the presence of animal parasites, a mercurial treatment is advisable. The black or the yellow wash, or mercurial ointment may be used. The common sulphur ointment is powerful enough to kill the ordinary *acarus scabei*.

Another formula of Thomas is very desirable as a vaginal injection and wash for the vulvæ: ℞. Plumbi acetatis, ʒ ij; acidi carbolici, ♁ij; tinct. opii, f ℥ j. M. aquæ, O iv.

Another topical application of demonstrated value is: ℞. Bismuthi subnitratis; acaciæ pulv., āā ʒ ij. M. Sig—Add water to the consistency of cream, and apply frequently with a brush.

The following is also excellent: ℞. Pulv. acaciæ, ʒ ij; bals. peru., f ʒ j; ol. amygdalæ, f ʒ iss; aquæ rosæ, f ℥ j. M.

And the following will be found an excellent lotion: ℞. Acidi carbolici, ʒ ij glycerinæ, f ℥ j; aq. rosæ, q. s. ad., f ℥ viij. M.—ft. Lotion.

It must not be forgotten that diabetic urine often produces obstinate and severe pruritus, so that examination of the urine is always advisable in such cases.

Hysterical or neurotic pruritus is best treated with a four per cent. solution of hydrochlorate of cocaine.

DISEASES OF CHILDREN.

Treatment of Cholera Infantum in the Philadelphia Hospitals.

Hospital of the University of Pennsylvania.—Dr. Louis Starr, in the treatment of entero-colitis in the clinic for children, gives great prominence to the hygienic management. The following points are insisted upon:

a. Fresh air must be secured by taking the child to a public square in the cool of the morning and evening, or, better still, by a morning or evening trip on one of the river steamboats. The heat of

the day must be spent in as cool a room as can be had. Coddling is discouraged, as many a stout mother has hastened her infant's death by too fond and constant nursing in the arms.

b. The clothing must be as thin as possible, provided, always, that woollen be worn next the skin.

c. Twice or three times a day in very hot weather, the whole surface of the body must be sponged with water at a temperature of 80° F., and dried with gentle rubbing. The addition of rock salt renders these baths more bracing. Full warm baths must supplant the cold spongings if there be much prostration.

d. Diet most carefully regulated as to quality, quantity, and intervals of administration. Sound cow's must form the basis of the food in bottle-fed babies. Fairchild's peptogenic powder is very useful in artificial feeding.

Medicinal treatment varies with the case. Should the patient be seen early in the attack, it is initiated by a laxative. A teaspoonful of castor oil with five drops of paregoric, or the same quantity of spiced syrup of rhubarb, is sufficient for an infant of one year. Afterward, while the stools are yellow, homogeneous, and not very frequent, alkalies and astringents are employed, as: ℞. Sodii bicarb., gr. xxxvj; syrupi rhei aromat, f ʒ ss; misturæ cretæ, q. s. ad f ʒ iij. M. S.—One teaspoonful every two hours for a child of one year.*

When the stools are frequent, green, and acid in reaction, small doses of opium are added to the alkali, for example: ℞. Tr. opii deod., ♏vj; bismuthi subcarb., gr. lxxij; syrupi, f ʒ ss; misturæ cretæ, q. s. ad f ʒ iij. M. S.—One teaspoonful every two hours.

At the same time, the skin of the whole abdomen is reddened, two or three times a day, with a weak mustard draught—one part of mustard to five of flour.

If the evacuations be liquid and contain whitish or greenish flakes, and the above treatment fail after a fair trial, good results often follow a short mercurial course; thus: ℞. Pulv. ipecac. comp., gr. ij; hydrag. chlorid. mit., gr. i; cretæ præparat., gr. xxxvj; M. et ft chart No. xij. S.—One powder every two hours for twenty-four or twenty-eight hours, or until the stools become yellow and homogeneous.

Should the stools be frequent and serous, more powerful astringents are used, as aromatic sulphuric acid, nitrate of silver or oxide of zinc.

When the stomach is very irritable, rectal injections are resorted to, the drugs used being tincture of opium, nitrate of silver, and ipecacuanha. Ipecacuanha is chosen when there is much tenesmus with the discharge of blood and mucus. It may be administered as follows: ℞. Ext. ipecac, fld., ♏xij; tr. opii deod., ♏viij; mucilag. acaciæ, q. s. ad f ʒ ij. M. S.—Inject one tablespoonful every four hours.

Stimulants—wine of pepsin, brandy, or whisky—are given when there is prostration.

In cases of recovery, the diet and hygiene are carefully watched until all danger of a relapse has passed; the astringents, etc., are gradually dropped, and digestants and tonics ordered.

The antiseptic treatment recommended by L. Emmett Holt, has lately been tried with good results. It embraces the careful attention to regimen already alluded to, preliminary evacuation of the bowels with castor oil, and the administration of naphthalin. The latter is usually ordered as follows: ℞. Naphthalin; ground coffee, āā gr. vj; sugar of milk, gr. xxiv. M. et ft, chart.

* All prescriptions given are calculated for this age.

No. xij. S.—One powder every two hours.

In the whole conduct of our cases, the greatest care is taken to avoid locking the bowels.

Philadelphia Hospital.—Dr. John M. Keating holds that the question of summer complaints may be considered under three heads, viz.: simple indigestion, the inflammatory form, and the septic. These may be distinct, or they may be combined in the same case.

Too little stress has been laid upon the inherited feebleness of the digestive organs in many children. One is often surprised at the failure which meets the attempt to bring up a child on the bottle notwithstanding every precaution be used. In these cases the digestive function is at fault—the infants are dyspeptic. Every child is a study in itself. Family idiosyncrasies have to be taken into consideration. "Bringing up by hand" is a science, and cannot be left to the nurse, however faithful and accomplished she may be.

At this time of the year, the simpler forms of diarrhœa are due to indigestion. The child is enfeebled by the intense heat, the teething process irritates its nervous system or affects its mucous membranes; the stools become frequent and watery, become green or at times colorless, and then there are flatulence and pain. If the baby be in the city, these symptoms may come on suddenly and with great intensity; there may be, also, vomiting and fever, with evidence of cerebral excitation. The treatment of such a case should be as follows: Absolute rest; the child should be kept in as cool a place as possible. Its bottle should be stopped at once, and for a few hours its diet should be limited to cool gum arabic water, with lime water, wine whey, if there is much prostration, or a small amount at a time of Valentine's beef juice, with wine of pepsine. Toast water, or egg-albumen water, may be used to vary the diet if the attack persists for several days. Counter-irritation by hot foot baths, flannels saturated with essence of ginger, or spice poultices to the abdomen, are very useful; and the gums should always be examined, and lanced if necessary, or the child should be given a soft handkerchief, soaked in ice-water, to suck or bite on As for medicinal treatment, we should use those preparations that allay gastric irritability. ℞. Hydrarg. chl. mitis. gr. 1-12; ext. pancreatis, gr. j; sodæ bicarb., gr. j. M. One every hour.

This Dr. Keating has found to be of great service; or: ℞. Bismuthi submit., gr. j; pepsini sacch., gr. ij; pulv. aromat., j. M.gr

But, and this is very important, if there be vomiting, and the passages contain curds, he would give: ℞. Hydrarg. chl. mitis, gr. 1-12; pulv. ipecac., gr. 1-24; sodæ bicarb., gr. j. M.

One every half hour till six are given, and then the following every hour until the stools are free from curds and normal in color: ℞. Ol. ricini, gtt. x; pulv. acac., gr. ij; syr. rhei aromat., gtt. v; spts. vini gal., gttx; aqua menth. pip., q. s. ad f ʒ ij. M.

Should there be much flatulence, mucus in the stools, straining, vomiting and fever—in other words, the symptoms of entero-colitis—the castor oil prescription is the one to be preferred, and he advises the salicylate of soda in half-grain doses to be incorporated with it.

When the stomach is very irritable, all feeding should be avoided by the mouth; and in such cases an enema of gum arabic water with the yelk of an egg, about two ounces every three hours immediately after a stool, may be given till the stomach is tolerant. When the

bottle is resumed he advises boiled milk prepared with arrowroot or rice in small amounts.

He uses wine whey freely in cases where there is much prostration, made less laxative by mixing with toast water or gum arabic water. The mucous membranes certainly are effected by the heat as well as the serous membranes, and on that account the temperature of these cases should be watched and controlled by refrigerant measures, or even quinine or antifebrin. Undoubtedly a large proportion of cases of summer diarrhea are due to some septic influence, especially when they assume the choleraic form. The suddenness of onset, the evidence of vasomotor paralysis, the exhaustive discharge, call for immediate treatment of the most energetic character. The mild, unirritating diet which has just been outlined should be rigidly enforced; without it, medicinal treatment is of little avail. The child should be frequently sponged to keep the temperature and the skin active. Sweet spirits of nitre should be used to keep the kidneys active and as a sedative; and if the pain seems severe and the movements are watery and frequent, the following may be given at intervals of one hour: ℞. Hydrarg. chl. mitis, gr. 1-12; pulv. doveri, gr. ½; sodæ bicarb., gr. j. M. Ft. chart j.

Should there be vomiting and a profuse serous diarrhea with pain, the following will probably answer better: ℞. Morphinæ sulph gr. ¼; acid sulphuric aromat., gtt. xxxij; spts. vini gallici, ʒ j; syr. acac., f ℥ ss; aq. menth. pip., q. s. ad f ℥ ij. M. Teaspoonful every two hours for a child a year old.

Or, if there is any reason to contraindicate morphia, use the following: ℞. Sodæ salicylat., gr. viij; spts, chloroformi, gtt. xxxij; syr. zingib., ʒ j; syr. acac., ʒ ij; aq. menth. pip., q. s. ad f ℥ j. M. Teaspoonful every hour. Shake well.

If in these cases the vomiting still persists, the following has served a good purpose: ℞. Sodæ salicylat., gr. j; bismuth. submit., gr. j; pulv. acaciæ, gr. ij.

Repeated every hour; and sustain the child by very small quantities of wine whey—not more than a teaspoonful at a time.

When excellent and powerful astringent and opiates are required, use the following: ℞. Tinct. kino comp., gtt. xl; syr. rhei aromat., f ʒ j; spts. vini gallici, f ʒ j; syr. acaciæ, q. s. ad f ℥ j. Sig.—Teaspoonful in water after every movement; and this formula can be varied by adding bismuth salicylate, or chalk if necessary, or dilute or aromatic sulphuric acid.

In all cases of cholera infantum the antiseptic treatment is the most valuable, using creasote, carbolic acid, resorcin, calomel, corrosive sublimate, p. r. n.

Dr. Keating is one of the first to advocate the use of the salicylate of soda in this form of diarrhœa, using salicylic acid in half-grain doses with the preparation known as soda mint. Its advantages are that it is cholagogue as as well as antiseptic.

Episcopal Hospital. — Dr. P. F. Henry, in the treatment of summer diarrhœa, believes intestinal antisepsis to be an important indication. Convulsions, or other symptoms of profound intoxication, occurring at the outset of such an attack, may be reasonably attributed, in the absence of direct chemical proof, to the presence of tyrotoxicon or other poisonous ptomaines, in the ingested food. The same symptoms occurring at a later stage are more probably due to the formation of such substances in the intestine, for it established that they are produced in abnor-

mal quantity in catarrhs of the gastro-intestinal tract. Whether introduced from without or formed within, an attempt should be made to prevent their disastrous effects upon the system. With this object in view, he has recently prescribed, with excellent results, the sodium salicylate, as recommended by Dr. Emmett Holt, of New York. He gives it with bismuth, and in the following formula: ℞. Bismuth. subnitrat. ʒ j; sodii salicylat., ʒ ss; syr. acaciæ, ʒ j; aquæ, q. s. ad ℥ iij. M.

For a child of from one to three years years of age, a teaspoonful may be given every two or three hours. For older children able to swallow a pill, thymol, which is undoutedly one of the best known intestinal antiseptics, may be administered. It may be given in doses of one grain three or more times daily. It is very insoluble, and is best made into a pill with medicinal soap.

With reference to the still more important question of diet, it is sometimes necessary for a child to abstain for a time from its customary supply of milk, and live on mutton broth, clam juice, and barley water. In certain cases, milk appears to undergo changes which render it irritating to the bowels, and poisonous to the system. A sustitute for milk may be found in some one of the numerous foods for infants, of which the soluble food of Carnrick is one of the best.—*Medical News.*

Treatment of Malarial Fevers in the Infant and the Young Child.

Dr. W. B. Lawrence (*Journal American Medical Association*): I will first endeavor to speak of the treatment of the milder forms of intermittent fever, either of a quotidian, a tertian or a quartan. First, in the simple or mild intermittent fever, and I presume we are to understand by this fever one wanting in grave or alarming symptoms. I do not think it necessary but to barely mention the fact that the bowels should be opened, and one of the preparations of quinine given in doses according to age, which of course, means a sufficient quantity.

Of pernicious intermittent fever, this form in many cases can be prevented, and many lives saved, by attention during and after the first paroxysm, that is we prevent others of a grave and may be a fatal type. When the fever becomes pernicious, we have two objects in view, namely: to see our patient through the existing paroxysm, and to keep off another.

In the first of these, suppose our case an infant, for example, say 4 months of age. In the cold stage, my experience is that they remain for a shorter time than older children or adults, and that we can more quickly, and with less work bring about reaction. In the 4 month infant, or may be some older, this is generally done by applying heat to the surface or wrapping the child in a blanket. But we may have much trouble with this aged infant in the hot or fever stage, and more especially if it goes into convulsions. Should the fever go very high, aconite nitre, paregoric and bromide of potassium in water, dose according to age; the sick stomach which we frequently find to be very annoying, is oftenest relieved by bromide of potassium or a creasote mixture. If convulsions come on, put the little fellow in a warm bath, or wrap in a warm wet sheet or cloth of a proper kind, move the bowels as soon as possible by enema, and if you can't give the antispasmodic by the mouth, administer it per the rectum, such as hydrate of chloral or bromide of potassium. As soon as the sick stomach subsides and the temperature is on the de-

crease, as a general rule, I think it quite necessary to give an active purgative. Not always, but quite often, order mercury in the form of calomel, and in these extremely pernicious attacks, I have not been able to find anything to take its place. I will say just here that I have never administered a dose of mercury in any form to either an adult, child or infant, that did the least harm in the way of salivation; in fact I never had but two of my cases in the least affected by it, and these very slightly and for only a short time.

As soon as the patient can bear quinia, we begin it, whatever the type, and if quotidian, we have no time to loose. So we try to give our 4 and 6 months', or probably 12 months' infant a sufficient quantity of quinia sulph. We have tried it in many forms, not as the saying is, to "disguise the taste," but rather to prevent nausea, such as elixir of licorice, lavender, malt, aromatic elixir, and also the cascara cordial. In some cases all fail; however, as a general rule, I find the licorice the surest; I think the cascara cordial acts too much on the bowels. On account of this sick stomach in a number of cases are forced to give the anti-periodic in another mode or channel, that is per rectum, or by inunction, and with our little syringe and quinia we get much satisfaction from the rectum plan. Of administering quinia by inunction, I will say but little. I frequently order in large quantities; still I am not able to say how much good it does in preventing a paroxysm, but think it aids in many cases to a certain extent. I have never ordered it in anything but pure hog's lard. I will mention a case as an example: I have a little niece 2½ years of age. She has had two or three attacks of ordinary intermittent fever. In the first spell, I ordered sulphate of quinine in an anti-nauseating mixture, but she could not retain a single dose; then I ordered it by inunction, which prevented a second paroxysm of anything like serious nature. The child is now 2½ years of age, and has never taken but the one dose by the mouth, which was vomited. I have several times used the inunction, and it looks very much as if it has prevented pernicious attacks.

Concerning the treatment in this form of fever in the young child, say 5 or 6 years of age. These cases we can manage with more satisfaction to ourselves than we could in the infant, for the reason that it will allow more to be done for its relief. In the cold stage we will find often more urgent treatment required than in little fellows. I should, in the first place, see that the heart's action is kept up towards normal, if possible, with stimulants; they may be alcoholic, brandy or whiskey will suffice, but if they fail I should try ether, and with it ammonia, by inhalation and mouth. I have also very frequently given nitrite of amyl by inhalation, dose ℥ ij–v in a handkerchief is very convenient mode of administration, and I have found this to be a very valuable remedy. In fact, I think it one of the best stimulants in this stage of the disease. In some cases, at this age, I have given morphine hypodermically, and especially in cases suffering with sick stomach and restlessness, I find that it affords great relief, brings about quiet, and aids good circulation very much; and in many cases is the only thing that will give relief. I have given chloroform in from eight to ten minims, but with little good, if any. While administering the above remedies, or some others, I order mustard in the form of plasters to the ankles and wrists and, at the same time, friction with flannel cloths.

Now, after helping to nurse our patients into a hot stage, we, if this hot stage becomes serious, try to cool them down. In some cases this is the alarming period; in others just the reverse. I give about the same febrifuges as mentioned heretofore. Sometimes I resort to the tr. verat. viride. I have never given antipyrin to children with those fevers; I have ordered it this winter and spring in a few cases of pneumonia with a very high temperature, say 104° and 105°; it always reduces the temperature, but I think it prostrates more than veratrum. I have found but little if any good from quinia in this hot stage. I almost invariably find it necessary to employ quite an active purgative and give it as soon as possible. I have given rhubarb in different forms, powdered and fluid extracts, senna and podophylin, and many drugs. I have not found anything to take the place of calomel. If you have a quotidan type you have no time to spare; so administer the purgative, and while the patient is taking it, if the stomach will tolerate, give within 12 or 15 hours, gr. xx of qninine. We may be compelled in some cases to give it as suggested in the cases of the infants. If the case require anti-spasmodics, give them, or about as suggested for the infants; only the dose in proportion to the age.

In the treatment of remittent fever, so soon as you are sure you have this form of fever to treat, there is that old remedy which is required in all cases, namely, cinchona, or its equivalent, quinia. In sthenic cases I should employ a light febrifage, and as soon as the fever gives away, give a proper amount of quinine, for restlessness; in insomnia, give bromide of potash and comp. pulv. ipecac; open the bowels freely, apply frequently cool cloths to the head, and order a warm mustard foot bath. These remedies often do much good.

We may be forced to do more than this if the fever takes on a pernicious form. The patient may require chloral hydrate or morphine to quiet him, or a mild mercurial purgative, frequently combined with santonine, followed with oil. To break up an attack of remittent fever without these things, is often impossible. I have had many a patron to say: "Doctor you will have to come to our child. It has had fever for three or four days, and a 'high one.' We cannot break it. We have given pills or oil, or probably one, or half a dozen domestic purgatives, and followed with a good amount of quinine for two or three days; but our treatment does no good." And if I find such to be the case, I generally give the calomel and santonine, and in a number of cases never made a second visit. The fever gives away in a number of instances within 10 or 12 hours. But frequently in a child of from 5 to 8 years of age, this fever will continue in spite of all our treatment, for 10 or 15 days, and maybe longer. After active treatment for 3 or 4 days, and the symptoms point to such a continuation, we begin a treatment similar to that of typhoid fever; that is, use tonic doses of quinine and one of the acids. A mild febrifuge, if necessary, keeps the bowels regular, and light stimulants after fever has continued some days. Order iron to be given for a short time after the fever has given away.

OBSTETRICS.

The Prevention and Treatment of Puerperal Fever.

At the recent meeting of the Ninth International Medical Congress, Dr. T. More Madden, of Dublin, read a

paper on the above subject before the Section on Obstetrics.

He recommended the following precautionary measures:

1. The most scrupulous attention to puerperal hygiene.

2. The preparatory treatment of the patient—suitable nourishment, fresh air, and appropriate tonics—of primary importance.

The author ordered a mixture of potassium chlorate, iron and quinine, to be taken during the last couple of months of gestation, and he has never seen puerperal septicæmia in a patient who had been thus treated before her confinement.

3. From the first day after delivery until convalescence has taken place, the uterine cavity as well as the vagina should be daily thoroughly washed out with water, as hot as may be well tolerated, to each pint of which may be added an equal quantity of sanital, which, from its absence of color, as well as its aseptic properties and agreeable odor, seems specially suitable for the purpose. Carbolic acid and rectified spirit of turpentine are good, while corrosive sublimate is unreliable and dangerous.

4. He does not use a siphon syringe, but employs More Madden's irrigator.

5. As a general rule liquor creasotæ (B. P.) should be administered two or three times daily in full doses. This may be advantageously combined with the tincture of the chloride of iron.

6. The prevailing type of puerperal fever is of a distinctly remittent typhoid character, and should be primarily treated by appropriate general stimulants and nutriments, as well as by attention to the removal of all septic matter from the uterus, in the way already pointed out. Turpentine, iron, quinine, ergot, and opium, are the only medicines that deserve consideration. Turpentine, the most important, may be exhibited per os, or per rectum, or by the skin. Turpentine is stimulating, depurating, increasing the elimination by the skin and kidneys, and arrests the development of micro organisms.—*Maryland Medical Journal.*

Point in Diagnosis of Common Displacement of Funis.

We have noticed, many times, during the progress of a case of labor, when there was an unaccountable retraction of the head after a prolonged expulsive pain, that invariably it was due to the cord being around the child's neck. This fact we have not seen previously mentioned.

Nitro-Glycerin in Suspended Animation.

An interesting case is reported in the *Sei-i kwai* medical journal of Japan, for November, of the resuscitation of a woman apparently dead by the hypodermic injection of nitro-glycerine. It was a case of collapse after child-birth. Dr. Sackersteen injected ten drops of a solution of nitro-glycerine (strength not given) into a vein. She made a good recovery. It has been suggested that this drug be used in cases of overdoses of chloroform and shock from surgical operation.

Labor.—Retention of Decidua Vera.

Dr. Hirsch exhibited a case in which the decidua vera remained after labor, and the uterus failed to contract to its normal size. On using the curette a very dangerous hemorrhage occurred, which took considerable trouble to control; but after a few days a second use of the curette removed the membrane and the uterus contracted to its normal size.

DISEASES OF WOMEN.

Total Extirpation of the Uterus Through the Vagina.

DR. A. MARTIN (University of Berlin):

My method for vaginal extirpation is as follows: After a complete disinfection of the vagina by irrigation, and a thorough emptying of the bowels, the patient is placed in position lying on her back and hips, and is brought under the influence of chloroform. The vault of the vagina is exposed by means of a speculum and side pieces; then the cervix is seized with bullet-forceps on its posterior border and drawn forward

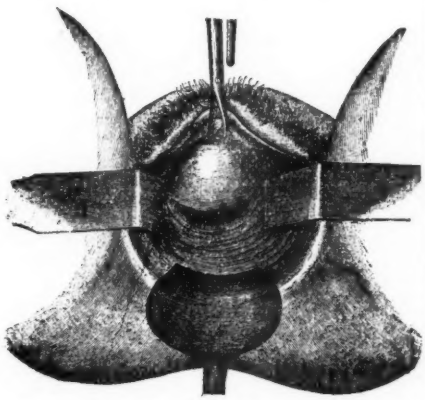


Fig. 1.—Opening into Douglas' *cul-de-sac*. Sutures through the vaginal wall.

as far as possible towards the symphysis pubis. In this way the posterior arch of the vagina is stretched, so that the insertion of the vagina in the uterus can generally be well determined. Then I make an incision through the entire extent of this insertion, in order to advance into Douglas' *cul-de-sac* as quickly as possible. If the attachment of the wall of the vagina to the cervix has not developed very thick, then the opening of Douglas' *cul-de-sac* is generally secured by the first cut. But if, however, the mass of tissue which must be cut through is very thick, then this penetration will be very difficult and troublesome, and, indeed, it is more so the more we must advance towards the uterus in order to reach the limits of this attachment. When the opening into Douglas' *cul-de-sac* has been attained, I enlarge the cut so that the forefinger of my left hand can enter, and then with a small needle, which is very much curved, I sew around the entire extent of the border of the cut in the vagina. (V. Figs. 1 and 2.)

The needle is thrust through the vaginal wall to the forefinger, which at this point presses forward the peritoneum, which it now includes, and comes out again into the vagina about a centimetre from the point where it entered. Of such sutures I generally use four or five, which unite the peritoneum of Douglas' *cul-de-sac* to the vaginal wall, and all bleeding at this point is stopped. Opposite these sutures, if the uterus bleeds very much, I thrust a single great needle through the cut surface of the uterus, and secure thereby a restraint against further trouble of the kind. It is only when the hemorrhage is entirely stopped that the operation is further continued. If the opening of Douglas' *cul-de-sac* presents difficulties, and also if there be considerable hemorrhage, I sew in a similar manner the broad cut surface itself to the vaginal wall before opening into Douglas' *cul-de-sac*, and then, while I draw this mass of tissue away from the uterus with the forceps I force my way deeper and deeper along the posterior wall of the cervix uteri. The peritoneum appears like a delicate, glistening membrane, behind which there is sometimes a small amount of fluid. As soon as the opening has been obtained, then the union of the peritoneum to the vaginal wall is secured throughout the whole extent of the floor of Douglas' *cul-de-sac*, in the same manner that has been described. The hemorrhage must

always be completely controlled at this first stage of the operation before going any further.

Next I sew up the stump of the broad ligament, for which purpose I use large needles armed with a double thread, thrusting them from the vaginal wall toward that place on the side of Douglas' *cul-de-sac*, which my finger within presses towards me. (V. Fig. 2.) These threads must also unite the peritoneum and vaginal wall. Often it is impossible to draw out the needle again directly through the vagina, without first having

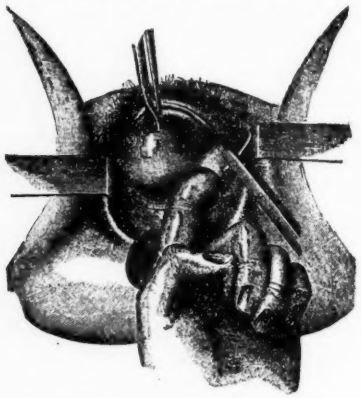


Fig. 2.—Sewing the floor of the pelvis.

thrust it completely through into the peritoneal cavity. In these cases I guide the needle-point, protected by my forefinger, through the open wound, out into the posterior part of the vagina, and while I hold firmly the eye of the needle with one hand, I secure the point of it with a second needle-holder. Only then do I take off the needle-holder from the end which has the eye; and now I draw the whole needle through, in order to thrust it, grasped anew, and again under the guidance of the forefinger, from the peritoneum towards the vagina, and bring it out here about a centimetre from the point where it entered. These threads must be tied by using great force. Generally I use three on each side, by means of which I firmly unite the floor of the pelvis and the vagina as far as the anterior border of the cervix. By this union the vessels which pass through are secured with greater safety before they are cut.

The separation of the cervix from the floor of the pelvis as far as its anterior border, and the further stitching of the same, is often accomplished without any loss of blood. The knife is thrust directly forward along the cervix until, on both sides, this lies entirely free, *i.e.*, as high as the fundus. As soon as all hemorrhage has been stopped, I cut around the anterior periphery while drawing the uterus forcibly backwards, and putting the anterior vaginal wall on the stretch. After cutting through the vaginal wall I push back along the cervix with my finger-nails that portion of the bladder which is united to the cervix, as far as I can discover such attachment. The extent of this attachment, and also the union of the cervix uteri to the posterior vaginal wall, varies exceedingly in different cases. Occasionally I have found it perhaps a centimetre thick, and in other cases it is five centimetres, or even more. Not unfrequently is it necessary to use the knife in order to separate the firmest bands of union. In this portion, also, we must sew, as exactly as possible, the separated surface to the vaginal wall, with small needles, which enclose the whole tissue directly under that surface of the wound which is next to the bladder. Here four sutures generally suffice to stop the hemorrhage, and for the restoration of the continuity of the vaginal wall. When the hemorrhage has entirely ceased, I grasp once more the posterior portion of the uterus, which has been separated, and having determined the size and mobility of the uterus, I now seize its posterior lip with

a Muzeux' forceps in order to draw it forcibly forward. Into Douglas' *cul-de-sac* there is placed a Sim's speculum or a side-holder, and this protects the fundus, as it is drawn down, from catching on the posterior border of the wound. By obtaining, successively, fresh grasps of the Muzeux' forceps, I guide the posterior wall of the cervix and fundus into the opening. If the uterus is freely movable, and is not much enlarged, this procedure does not offer many difficulties, while if it is very large and thick, this stage of the operation may be made exceedingly tedious. An advantage is often secured by pushing the cervix uteri up behind the symphysis pubis. In other cases, I have introduced into the uterine cavity an instrument (shaped like a stout, blunt urethral sound), and pushed the fundus down by this means. If the cervical canal is very narrow, the introduction of this instrument may be very difficult, but in this case it can be accomplished by splitting the canal. I like to avoid using this instrument, because the posterior wall of the uterus is generally bored through by it, and then the contents of the uterus escape on the surface of the wound. As soon as the fundus of the uterus has presented itself, it follows easily through the opening if the attachment to the pelvic floor has been sufficiently separated. In some cases this is attended with many difficulties which must be overcome by using the knife or scissors.

The further detachment of the uterus, in this inverted condition, is very difficult, especially on account of the excessive hemorrhage which accompanies it. I isolate the insertion of the broad ligaments to the organ thus turned out, and display the tubes and that portion of the broad ligament lying near them, in order that I can tie this in one, two, or three segments, which I accomplish on both sides before I cut away the uterus itself. There still remains to be separated quite a thick mass of tissue at the sides of the lower segment of the fundus. The masses which appear easily accessible, after the separation of the insertion of the tubes, and of the attachments of the round ligaments, are first ligated (the one on the left side being done first), and sewed firmly to the border of the wound in the vagina, before they are cut through. The separation of the uterus from the bladder is easily accomplished, if one always works close to the uterus with the knife or the scissors. In this case, also, I like to sew together the peritoneum and the vagina before completing the separation, and thereby do not allow the peritoneum to slip beyond my control.

Finally, the separation of the stump of the right broad ligament is attained. Here also the control of the hemorrhage and the fixation of the stump is secured by sutures before the uterus is completely freed.

It is comparatively seldom, during the whole operation, that loops of intestines come down to the seat of operation, or into sight. If they do become troublesome I lay a sponge under them, and thus protect them from injury.

The ovaries and tubes often come down into the wound, especially when they are much enlarged. In such cases I have ligated them, and cut them away without much difficulty.

As far as this stage of the operation a continuous irrigation of a weak solution of carbolic acid suffices for cleansing the wound. Only now do I make use of two or three small sponges in order to cleanse Douglas' *cul-de-sac*, and to make safe the edges of the wound by drawing over them out of Douglas' *cul-de-sac*, these sponges which are secured by long bullet-forceps.

In my operations I have never yet seen excessive hemorrhage following extirpation of the uterus.

Slight bleeding can be controlled by stitches put in afterwards, and then I insert into Douglas' *cul-de-sac* a thick drainage-tube which is held in place by a cross-piece. (V. Fig. 3.) I ascertain the condition of the bladder by a catheter and then conclude the operation. For this purpose the outer end of the drainage-tube is turned back into the vagina, and then a large compress of cotton is inserted into the vagina to close up the

Fig. 3.—Drainage after total extirpation.

large opening which gapes open considerably.

The duration of the operation varies very much according to the difficulties which are met with during the first stage—the limit being between twenty minutes and two hours. The loss of blood is very small if the uterus is freely movable, and the peritoneum lies in a position relatively favorable, so that I have repeatedly seen hardly more than fifteen grammes lost in such cases. On the other hand, in some cases it can be very voluminous, even if the part has been prepared by continuous sutures. For a long time, however, I have not seen such hemorrhages that threaten life. For the prompt control of this quite a considerable experience in using the needle is necessary.

The hemorrhage is especially great if the neighboring tissues are diseased, whether there are old cicatrices from a former inflammation, or a commencing infiltration.

Perhaps the reason why I have not seen greater hemorrhage of late is because I have been much more reserved than at the beginning in cases of such surrounding infiltration, and I am less ready to attempt total extirpation than I was formerly, and also, apparently, more favorable cases have come to me.

In these cases of excessive hemorrhage I have usually been able to ligate the bleeding vessels, and many times I have sewed around the very limits of the pelvic floor with large needles.—*Annals of Gynæcology.*

Hysterectomy for Myoma.

Dr. Howard A. Kelly, in a letter from Leipzig, says:

Dr. Saenger operated, with two active assistants, besides one administering chloroform and another keeping the cautery ready. The room, well lighted on two sides with a south-eastern exposure, had been washed the day before and shut up, with the carbolic acid spray in play for some hours, no spray being used at the time of operation. The doctors, having all bathed in the morning, and carefully cleansed their hands and forearms, stand ready by the plain table upon which the patient lies with her head to the light and knees strapped down. Dr. Saenger on the patient's right, and Dr. Donat on the left, have each close at hand a light iron stand, containing a wash basin full of carbolized water, into which they frequently dip their hands. Back of Dr.

Saenger are two tables, one with a deep zinc tray on top containing four trays of instruments, and the other with three basins for sponges and ligatures. The third assistant stands here, ready with needles, ligatures and sponges as wanted.

A free incision, beginning just below the umbilicus, is now made down to the rectus muscle. All bleeding points are carefully caught in the Kœberle forceps and tied; the *linea alba* is now sought and opened down to the peritoneum, with the same precautions as to hemorrhage, and the peritoneum is laid open the full length of the wound. The hand now easily enters the peritoneum and

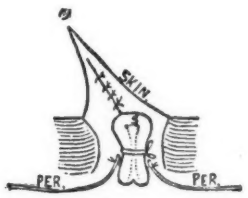


Fig. 1.

grasps the tumor; this, however, being so firmly wedged in the pelvis, having even descended so far as to cause the nulliparous uterus to extrude at the vulva, requires several minutes of manipulation, rocking and careful pulling to raise, finally slipping out at the incision.

The ovaries and fimbriated ends of the tubes are found to be hidden far under the convexity of the tumor and extremely difficult to reach. They are, however, finally tied off, first right and then left, and through the opening thus made down to the uterus in the broad ligaments, the elastic rubber ligature is carried around the uterus, made to bite very tight, and tied.

The tumor now being cut off above the elastic ligature, the stump is brought out at the lower angle of the wound for external treatment on account of the prolapsus. Except under peculiar circumstances, Dr. Saenger prefers the internal treatment as in ovariotomy. The remaining steps will best be indicated by means of a few simple diagrams. After

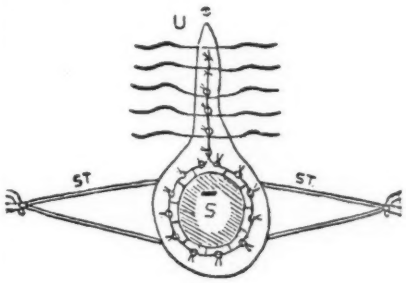


Fig. 2.

carefully burning the raw surface (S) with Paquelin, the peritoneum (Per. in fig. 1) is carefully stitched to the stump below the elastic ligature and all around (as seen in fig. 2), encircling the stump.

This and the subsequent dressings around the stump are facilitated by four silk threads (S. T.) applied at the skin margin, serving to pull out the skin as shown, and to prevent inversion. The

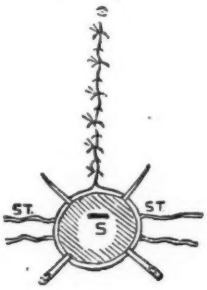


Fig. 3.

peritoneum in the wound above is now sewed separately (as shown by the line of sutures in figs. 1 and 2) at the bottom of the incision.

Two large, strong sail-cloth needles have transfixed the stump (as shown in fig. 3) to counteract the invariable tendency to drawing back into the abdo-

men. The skin and muscular layers are finally sutured (as seen in figs. 2 and 3) and closed down to the stump.

A dressing consisting of equal parts of iodoform and tannin is very thoroughly applied on and around the stump, and then iodoform gauze in and about it and under the needles, and bichloride cotton and adhesive straps, fixing the dressing over the whole; and, with a bandage about the knees, the patient is returned to her bed with a pulse but slightly altered. The operation throughout was marked by a neatness, readiness of action and precision very pleasing to behold.—*Pittsburgh Medical Review.*

A New Form of Suture Pin for Use in Perineorrhaphy.

Dr. J. H. Kellogg, of Battle Creek, Mich.:

After employing the old method of operation for the repair of laceration of the perineum in something more than fifty cases, I became satisfied that some method might be devised whereby the patient would be subjected to less suffering, and the surgeon less uneasiness respecting the results. The chief cause of pain always seemed to be a swelling of the tissues from the strangulation induced by the wire sutures, which was frequently increased by more or less cutting of the skin in spite of the nicest care in the adjustment of the sutures and avoidance of unnecessary strain. I noted that some of our best operators, in their writings upon the subject, referred to this swelling as a necessary result of the operation, and regarded opiates in some form as on this account necessary in the management of cases of this sort. This led me to believe the swelling to be due to the plan of operation, and not to any individual fault of my own. I found the opium very objectionable, both from its unpleasant after effects, and from its aparent immediate effects in delaying the reparative effort. Fearing to make a very radical innovation, and with much timidity, I gradually lessened the number of wire sutures employed, using superficial silk or catgut sutures, until I reduced the wire sutures to one; and this I did not bury in the tissues, but carried through the mucous membrane, exposing it for at least an inch upon the vaginal surface, about one and one-half inches from the introitus vaginæ. By thus giving a broad bearing surface, I was pleased to find much less swelling of the parts; and corresponding comfort to the patient, and more speedy union of the tissues. Subsequently I dispensed with the wire suture altogether, except in a case of complete laceration in which from previous unsuccessful operations or from the great length of time which had elapsed since the laceration occurred, there was great scarcity of tissue and difficulty in holding the parts in good coaptation.

I had followed this method with most satisfactory results in more than 100 cases, when my attention was called to the form of pin devised by Dr. H. O. Marcy. The great advantage secured by the ingenious device of Dr. Marcy in securing lateral pressure upon the wound, and wholly preventing the strangulation of the tissues often unavoidable by the old method, was to me at once apparent. I had found my own method so satisfactory, in these regards, however, that I continued to employ it until a few weeks ago, when it occurred to me that I would try the pin. Being obliged to operate before I could provide myself with one of Dr. Marcy's pins, I had a set of pins made for me by a jeweler, using platinum wire; it oc-

curred to me to have them made after what I suppose to be a new fashion, viz., in the form of a hare-lip pin with an eye near the point, by means of which the inner extremities of the needle may be secured together by silk or silver wire, and held as closely together as may be required. I found that the pins answered the purpose admirably. By securing the inner ends of the pins in close proximity, any desired degree of pressure may be made upon the sides of the wound by simply bringing together the outer ends of the pins and securing them by means of silver wire wound first around each pin and then twisted together. The advantage which these pins possess in common with other forms of pins used for the same purpose, are chiefly these:

1. They secure lateral pressure of the wound, thus spreading out the tissues instead of drawing them together, and by this means securing union in such a manner as to produce a thicker and more nearly normal perineum than is ordinarily obtainable by the old method.

2. They effectually prevent the swelling of the tissues, so constantly present in cases treated by the old method, and thus contribute to the comfort of the patient and diminish the liability to destructive inflammation and septic poisoning.

3. They are not likely to cut or otherwise injure the tissues.

I have not used any other form of pin, and hence cannot speak even from theoretical considerations; but it has seemed to me that the form of pin here presented has at least the following advantages over other forms:

1. The readiness with which it may be introduced and secured in position.

2. The perfect adjustment of pressure which may be secured. Even very severe hemorrhage may be controlled, as the pressure may be made as great as desired for a few hours subsequent to the operation, being lessened with the greatest facility at any subsequent time as may be considered desirable, by simply separating the outer ends of the pins. I have had occasion to perform perineorrhaphy only six times since devising these pins, and hence my experience with them is as yet very limited; but the results have been so excellent that I hope they may prove to be a serviceable addition to the surgery of the female perineum. I may further remark that in the use of the pins I do not rely wholly upon them for holding the wound in coaptation, but carefully join the edges of the mucous membrane and skin by fine silk or catgut sutures, taking pains to cover completely the denuded surface. I depend upon the pins to control bleeding and hold the centre of the wound firmly together. The pins give little or no pain, and may be removed on the fifth day. I have found platinum to be too soft and flexible, and now use steel or brass pins, nickel plated. I fancied that some inconvenience might be experienced by the patient from the points of the pin exposed in the vagina, but have found no complaint of pain from this cause. If the direction of these pins is correct, they will lie almost parallel with the axis of the vagina, and with the portion exposed in the vagina resting flat upon the posterior vaginal wall.—*Journal American Medical Association.*

A Case of Pseudo-Hermaphroditism.

In June, 1886, a person dressed like a woman was admitted into the Charité Hospital, Paris, with strangulated inguinal hernia, and died shortly after its

reduction. In the *post mortem* theatre it was discovered that the patient was a male with perineal hypospadias. "Cet individu, femme pendant 69 ans, était un homme." There was a history, fairly distinct, of masculine sexual proclivities; he had never married. He shaved and was very strong, yet never seemed to doubt that he was a woman. He often locked himself up for days in his room, and was often morose and suspicious. The body of this hermaphrodite was well nourished, with very muscular limbs; the mammæ were rudimentary. The distance between the anterior-superior iliac spines was eleven inches and three-quarters, between the tubera ischii four inches and three-fifths. There was hair on the upper lip and chin, but not on the cheeks, nor on the chest, nor along the linea alba between the umbilicus and pubes. The upper and lower extremities were smooth. On inspecting the pudenda, a vulva-like structure was found, covered externally with hair. The labia majora were united in front, but ceased posteriorly at the level of the meatus urinarius. The right contained a testicle in its tunica vaginalis, continuous with the peritoneal cavity; the omentum and intestine which it had contained had been reduced during life. The labia minora were prominent, but ended abruptly a little in front of the line where the labia majora ceased. Anteriorly they bifurcated, and one part contributed with its fellow to form the prepuce; the other united to the corresponding lip of the fissured under surface of the glans, forming a true frænum. The penis possessed a well formed glans with a corona, and with a short corpus cavernosum, single, as will be explained. The glans were deeply grooved inferiorly. The groove looked like the orifice of a canal, and was continuous, though there was some indication of a faint line between them, with a groove which ran backwards to the vaginal orifice, ending in the narrow elliptical orifice of the urethra. The groove bore the urethral foramina of Morgagni. Two small depressions on each side of the meatus appeared to represent the orifices of Cowper's ducts, but their glands could not be found. The vaginal, or rather vulvar, orifice was oval, and its widest diameter only seven-tenths of an inch. It led into a blind pouch, one inch and a half deep. The orifice was bordered inferiorly by a thin membrane forming a prominent fourchette. The perineal raphé was not quite four-fifths of an inch long. The bladder appeared to be normal, but there was no uterus to be seen. Below the bladder, however, was found a fleshy mass which received in a hollow the vasa deferentia. The single corpus cavernosum was found to be attached to the deep perineal fascia and not to the pubic arch. The corpus spongiosum appeared, on deeper dissection, to be remarkably formed. It arose under the corpus cavernosum, and the lips of the glans, beyond the groove already described, separated widely into two branches of spongy tissue which ran along the greater part of the side of the vaginal orifice, but did not unite behind it. The fleshy body below the bladder was simply a uterus masculinus. The vaginal pouch entered into it. The urethra lay in front of it, the rectum behind. Into the upper part of the pouch the vasa deferentia opened; they ran part of their course through the substance of the uterus masculinus; immediately beyond it they were dilated and tuberous for three and a half inches. These fusiform dilatations appeared to represent the versiculæ seminales. The left was pervious throughout. The right ended as a fibrous cord in the wall

of the hernial sac in the labium. In that sac was the right testicle, normally formed, and about one inch and a half in its long axis. The left testicle was quite undescended, "en ectopie susinguinale;" it did not measure quite an inch and a half long. The epididymus looked upwards and outwards. The glandular tissue of the testicles was in a state of atrophy; no spermatozoa could be found. The urinary organs exhibited strange abnormalities. The right kidney was much enlarged; the left was reduced to a fibro-adipose mass, intimately adherent to the body of the second lumbar vertebra. It contained a calculus. Trélat has already noted the frequency of urinary calculi in cases of hypospadias.—*Obstetric Gazette.*

Are the Tubes and Ovaries to be Sacrificed in all Cases of Salpingitis?

Dr. William M. Polk, of New York, in a paper with this title, first described the conditions formerly attributed to pelvic cellulitis, but which it was now known might be caused by salpingitis. Salpingitis did not seem to be so destructive as maiming in its action. There was good reason to believe that this maiming was often due less to disease of the tubes or the ovaries than to adhesions to which it had given rise and to displacements. The conclusions given in the paper had been drawn from the observation of one hundred cases of salpingitis, in fifty of which the diagnosis had been confirmed by opening of the abdomen, while in the other fifty there could be no doubt of its correctness. On comparing the symptoms with those of what was formerly known as pelvic cellulitis, he had found the two conditions to be practically the same. The majority of patients with salpingitis recovered; of the remainder much the larger number remained invalids for years, and the others succumbed to the disease. Of those who recovered from salpingitis, some remained sterile. Had he been asked a year ago whether the tubes and ovaries should be sacrificed in all cases of salpingitis not tending to recovery, he would have answered in the affirmative, but experience had modified his view. In some cases he had found that the adhesions were the most conspicuous feature; there was tubal disease, it was true, but it amounted to little more than a catarrhal inflammation. But there was absence of dilatation of the tubal canal, although the walls were thickened. Aside from some peri-oophoritis, the ovaries appeared normal. But they were bound by adhesions in an abnormal position. Recurrent inflammatory attacks did not form an important feature in the clinical history; they were chronic cases. In comparing the pathological condition with the clinical history, it had occurred to him that the adhesions might be an important factor in causing the sufferings of the patient. If this were true, it seemed a cure might be effected simply by relieving the adherent organs. There were certain objections to such an operation, one important one being to prevent the renewed formation of adhesions. An aid in this direction was Alexander's operation for retaining the uterus in an elevated, corrected position. The object sought for was to relieve the patient of her sufferings, and at the same time avoid the mutilation which the operation performed by Mr. Tait involved. The success of the procedure was to be measured only by actual experience, and the author had eight cases to relate, the histories of four of which had already been published in the *American Journal of Obstetrics*, those of the other four were in the records of Bellevue Hospital. Of the last named

four cases, in the first, on opening the abdomen, shortening of the utero-sacral ligaments was found, the uterus being attached to the rectum. These adhesions were torn, the utero-sacral ligaments were stretched, and a drainage tube was put in. The patient did well. In another case the womb was bound down by adhesions, which he broke up, and he then lifted the uterus, loosened the tubes and ovaries, and did Alexander's operation to retain the uterus in position. In the other two cases also there were adhesions which he tore, and then performed Alexander's operation. In closing, he wished to say that the operation for the removal of the tubes and ovaries had been a great boon to woman, but, as it involved mutilation, it should be confined to the narrowest limits possible consistent with the preservation of health and life.

Dr. A. Martin, of Berlin, an invited guest, said that it gave him pleasure to know that Dr. Polk did not limit the term salpingitis to cases in which there was a tumor of the tubes. Neoplasms of the tubes were very rare, probably because there were no glands in those organs. Their most common affections were catarrhal, having their origin in the mucous lining of the uterus. Some thought salpingitis was often of gonorrhœal origin, but in only one case had he found the gonococcus. Tuberculosis was seldom seen in this locality. Catarrh of the tube might give rise to swelling, to hemorrhage, or to purulent accumulation. Early occlusion usually took place. The disease was commonly limited to the tube. In only a minority of cases had he found it necessary to operate. As most of the cases of salpingitis were catarrhal, we should first try all means of treatment in harmony with this nature of the disease, and, failing, then operate. He had removed the tubes and ovaries in only eighteen cases, and they were carefully selected severe cases, urgently requiring the operation. The percentage of mortality had been about twelve per cent. The general treatment which he employed varied in different cases, but he enjoined rest, applied leeches and ice-bags over the abdomen, and, if there was tenderness, he employed a narcotic. When the tenderness had subsided, he applied preparations of iodine, peat, etc. He seldom used mercurial preparations locally unless there was a distinct history of syphilis. He tried to regulate the digestion, and in some cases employed massage with caution.

Dr. T. A. Emmet believed, with Dr. Martin, that a large number of these patients could be cured without resorting to an operation, and that it was our duty to first try other measures, unless it might be in cases of salpingitis of known gonorrhœal origin.

The Corset Questions of Pressure and Displacement.

Dr. R. L. Dickinson, in an article published November 5th, 1887, in *N. Y. Medical Journal*, arrives at the following conclusions :

1. The maximum pressure at any one point was 1.625 pound to the square inch. This was during inspiration. The maximum in quiet breathing was over the sixth and seventh cartilages, and was 0.625 pound.

2. The estimated total pressure of the corset varies between thirty and eighty pounds—in a loose corset about thirty-five pounds, in a tight corset sixty-five pounds.

3. Within half a minute after hooking the corset such an adjustment occurs that a distinct fall in pressure results.

4. The circumference of the waist is

no criterion of tightness. The difference between the waist measure with and without corsets gives no direct clew either to the number of pounds pressure or to the diminution in vital capacity. Relaxation and habit seem to affect these factors largely.

5. The capacity for expansion of the chest was found to be restricted one-fifth when the corset was on.

6. The thoracic character of the breathing in women is largely due to corset wearing.

7. The thoracic cavity is less affected by the corset than the abdominal.

8. The abdominal wall is thinned and weakened by the pressure of stays.

9. The liver suffers more direct pressure and is more frequently displaced than any other organ.

10. The pelvic floor is bulged downward by tight lacing one-third of an inch (0.9 cm.).

Some Observations upon Pelvic Cellulitis.

DR. VIRGIL O. HARDON, concludes an article published in the *Atlanta Medical and Surgical Jour.*, as follows:

My object in writing this paper is to submit the following propositions:

1. Acute pelvic cellulitis in the stage of infiltration may frequently be aborted by aspiration.

2. Chronic pelvic cellulitis rarely, if ever, exists except as a sequence of a previous acute pelvic cellulitis.

3. Hardness and tenderness in the broad ligaments, as a result of pelvic venous engorgement, are commonly mistaken for chronic pelvic cellulitis.

4. The treatment of such engorgement by raising the womb in the pelvis relieves the constitutional as well as the local symptoms, and places the patient in a suitable condition for a radical operation more speedily than the methods of treatment commonly in vogue.

DISEASES OF CHILDREN.

Differential Diagnosis of the Tuberculous Meningitis of Childhood.

SIMON says (*La Semaine Médicale*) that the difference of symptoms in cases of tuberculous meningitis is partly dependent upon the greater or less extent of inflammation, upon the locality of the latter, and upon the occurrence of accidental affections, such as dropsy of the cerebral ventricles. He distinguishes three forms, the creeping, the intermittent and the typhoid. The course of the disease is influenced by complications with tuberculosis of the lungs, peritoneum and bones, and by the age of the child; the disease pursuing a more rapid course in a child over ten than in one under ten years of age. As to the differential diagnosis, much difficulty is encountered in distinguishing between tuberculous meningitis and typhoid fever, and, a very important point, between the former and pneumonia; for the latter disease is characterized by a very sudden beginning and an immediate high rise of temperature.

Most cases of so-called cured meningitis, Simon regards as mistakes in diagnosis for cerebral congestions complicated with acute hydrocephalus—an affection undescribed, but undoubtedly existing; occuring especially as the result of catching cold, and after eruptive fevers, indigestions, gastric disturbances, and even after simple sore throat. This affection at the beginning is deceptively like tuberculous meningitis. Moreover, severe intermittent fever may likewise simulate meningitis; but here the action of quinine renders the diagnosis certain. Cerebral sclerosis, before the stage of paralysis, is also apt to become confused with meningitis.

Violent long continuing headache is also found in rapidily growing children

between four and seven years of age, especially if overworked in school ; but a suitable dietetic regimen will soon cause these headaches to disappear, and will prevent errors in diagnosis. Children of parents who have migraine, gout or rheumatism, frequently suffer from persistent headache, which finally appears as an otitis, and as hysteria, though not to such a degree that an error in diagnosis cannot be avoided by the exercise of some care.—*Deut. Med. Zeit.—Medical and Surgical Reporter.*

Pott's Disease Below the Spinal Cord in Children, and its Consequences with Reference to Future Accouchement.

The reference in the author's *brochure* is to that form of Pott's disease which affects the sacral region, and the conclusions are as follows:

1. *a.* In lumbo-sacral Pott's disease the changes in the bones may amount to simple erosion or to complete destruction. A single vertebra may be involved, or the entire lumbo-sacral region. *b.* The intervertebral cartilages may disappear completely, even before the vertebræ are destroyed. *c.* The spinal canal may communicate directly with the caseous tuberculous deposit. *d.* The dura mater is almost always involved. *e.* The nerve fibres of the cauda equina may be involved both microscopically and macroscopically, or they may remain intact macroscopically notwithstanding the phenomena of partial atrophy in the muscles of the lower limbs. The nerve fibres may be compressed by thickened dura mater, bony prominences, caseous matter, &c. *f.* The crural and inguinal ganglia and those of the iliac fossa which are contiguous to the iliac vessels and to the vena cava inferior are, as a rule, engorged, caseous, or simply riddled with small tubercles or ulcers. *g.* Abscesses consequent upon congestion are very common in this form of disease. They frequently recur and tend to work downward. They destroy the nerves, muscles, vessels, and periosteum with which they come in contact. *h.* The muscles which are brought into contact with an abscess or with tuberculous matter may be entirely destroyed or be reduced to a caseous mass. *i.* The vessels may be compressed by the enlarged glands, by caseous deposits, or by an abscess.

2. *a.* The principal indications of lumbo-sacral Pott's disease are protuberance, abscess, and partial atrophy of the muscles of the lower limbs. There may also be local pain, peculiar attitude and gait, enlarged inguinal glands, vaso-motor troubles, and trophic disorder in the lower limbs. *b.* Usually one limb is first affected, and then the other. Incomplete paraplegia may be present from almost the beginning of the disease. *c.* Rectal examination is of great value in establishing a diagnosis.

The eruptive fevers occasionally act as causes in this disease. The disease should be differentiated from coxalgia, sacro-coxalgia,and abscess of the bones. In unfavorable cases the disease lasts about twenty months. Its prognosis is grave. Treatment may be immobility, with or without extension, opening of the abscess, injection of iodoformed ether, revulsives, and hygienic measures. —*Jour. de Med.—Arch. Pediatrics.*

Hepatic Cirrhosis in Children.

Dr. R. Palmar Howard, of Montreal, reports (*American Journal of the Medical Sciences*): two cases of this rare affection in children, in which neither the use of alcohol nor the virus of syphilis can be assigned as the cause. Dr. Howard then presents a very careful study of the clinical histories of the 63

cases occurring in children before puberty, of which he has been able to collect the records. As the result of this analysis he finds :

1st. That most of the established causes of the disease in adults obtain also in children, more especially the use of alcohol, present in 15.8 per cent. of the whole number ; syphilis, chiefly hereditary syphilis, present in 11 per cent.; tuberculous disease of other organs than the liver, in 11 per cent.; also, but much less frequently than these, venous congestion of the liver, peritonitis, and a general tendency to connective tissue formation in the system.

2d. That syphilis occasionally tends to a diffuse interstitial hepatitis or cirrhosis, by first inducing an adhesive inflammation of the portal vein.

3d. That a general arterio-capillary fibrosis is not proved by these cases to be the usual, and probably not even a frequent, cause of hepatic cirrhosis in childhood.

4th. That more than half of the cases of hepatic cirrhosis in children do not appear to be produced by the above mentioned well established cause of that affection.

5th. That there is some evidence that cirrhosis of the liver may be very exceptionally induced by the acute infectious diseases—cholera, typhoid fever, measles, scarlatina, but that proof of this is wanting.

6th. That the habitual use of a stimulating diet, or the absorption of the products of faulty digestion, are probably fruitful sources of hepatic cirrhosis in children.

7th. That it is in harmony with what is known of the causes of hepatic cirrhosis to believe that the bodies known as ptomains may be capable of exciting a cirrhotic condition, and that investigation of this subject deserves attention.

8th. That the period of childhood most liable to cirrhosis of the liver is from the ninth to the fifteenth year inclusive, but that it may be congenital, and may occur at any age after birth.

9th. That it is twice as frequent in male children as in female.

10th. That its symptoms are essentially the same in childhood as adult life.

11th. That it is frequently accompanied by pyrexia.

12th. That ascites or icterus, and frequently both together, are of common occurrence in the atrophic and hypertrophic forms.

13th. That the group of symptoms which have been referred to cholæmia or to cholesteræmia or to acholia, and even sometimes to uræmia, frequently ushers in the fatal issue of hepatic cirrhosis in children.—*Med. News and Journal.*

OBSTETRICS.

Management of Occipito-Posterior Positions.

Dr. L. Ch. Boislinière (*The Journal of the American Medical Association*):

Causes—The chief condition of its production, as shown by Lusk, in his admirable treatise, is a partial extension of the head, the forehead then turning anteriorly, in accordance with the law that "the most dependent portion of the presenting part is moved to the front."

Diagnosis. Before Labor. By Palpation.—The vertex is easily recognized, but is to the left, that the hand which depresses the abdominal parietes meets the greatest resistance, and penetrates less deeply, on account of the protrusion of the forehead on a level with the left ileo-pecrineal eminence. Therefore, the back must be looked for to the right, and to recognize it distinctly, the

patient should be placed on her left side, in order to be able to palpate the postero lateral region of the uterus. (Pinard, Charpentier.)

Diagnosis by Auscultation.—According to Depaul, the maximum of the fœtal heart will be heard in the vicinity of the quadratus lumborum muscle, on a line from the right sacro iliac synchondrosis to the umbilicus.

Diagnosis by the Touch.—The head will be found in a state of semi-extension, the posterior fontanelle is back, very high and difficult to reach. The anterior fontanelle, in front and to the left, is easily reached. Sometimes the superciliary ridges and even the orbits can be felt, but they will reascend during a pain. The nearer the centre of the excavation will the posterior fontanelle be felt, the more favorable will the prognosis be.

After delivery, a marked prominence of the frontal bone, and a red mark there, will often be noticed. This protrusion is produced by the more dependent position occupied by the forehead; the red spot by the prolonged pressure of this bone against the pubis. These signs may serve to verify the diagnosis after the labor.

A diagnostic symptom which I have often noticed in my practice is a premature discharge of the amniotic fluid before labor pains have begun.

Prognosis.—It is generally favorable; and in the majority of cases, the occiput comes spontaneously to the front. But it must not be forgotten that this labor is much more painful to the mother and more dangerous to the child, on account of the great extent of the rotation necessary to bring the occiput to the pubic symphysis, and for this reason frequently requires assistance.

In the minority of cases, where the rotation forward does not take place, and the occiput is born in an occipito-sacral position, there is great danger of laceration of the perineum, or this may be centrally perforated and the child born through the rent, as recorded by Valpeau, and as in a case I saw in consultation where, by a timely application of the forceps assisted by manual compression, the head was made to re-enter the vagina and safely delivered. The opening closed spontaneously.

Mechanism of these Positions.—In occipito-posterior positions, how does the rotation of the occiput take place? It requires for its production sufficient uterine action, a resistant pelvic floor, a normally incurvated sacrum, and a normal condition of the ischiatic spines. In fact, the rotation of the occiput forward is performed in accordance with the principle of the known geometrical theorem of the parallelogram of forces, through which, when two forces are acting on a movable body in different directions, this body moves in the direction of the diagonal of those forces. For instance, if a cherry-stone be pressed between the thumb and index finger, it will fly off by a tangent, which is the diagonal of the two opposite forces represented by the thumb and index finger.

In this manner the occiput, acted upon by two opposite forces, viz.: the uterine contraction and the resistant pelvic floor, will be propelled forward towards the anterior part of the pelvis.

Why does not this anterior rotation always take place? It is because there if insufficient uterine action, a lax perineum or one lacerated in a previous labor; a flat sacrum, or abnormally projecting ischiatic spines. If any of these conditions be present there will be no anterior rotation of the occiput, and the labor may be indefinitely prolonged, unless terminated by art.

But, if all the factors favoring anterior rotation are present, viz.: uterine contraction, resistant pelvic floor, normal incurvature of the sacrum, and there be a marked projection of the spines of the ischium, or the child very large, then the rotation will take place backwards. This abnormal projection of the ischiatic spines can be easily detected through the lateral vaginal walls at about two inches above the pelvic floor. The detection of this projection will serve as a means of prognosis as to the course the occiput will take.

When the rotation takes place posteriorly, the head descends in a state of forced flexion, the occiput against the sacrum, the forehead against the pubic symphysis; the occiput, following the postero-lateral side of the pelvis, turns completely back, is delivered first, and the perineal commissure serving as a fulcrum to the neck, the head being completely extended, there appear successively under the pubic arch the bregma, the face and the chin.

Conversion of an Occipito-Posterior into one of the Face.—This may be spontaneous or produced with the forceps. In this instance, the extension of the head becomes quite exaggerated, and the chin is first born under the pubic arch. This conversion can take place only if the pelvis in a multipara be unusually roomy, the child small, the perineum lax or torn in a previous labor.

Indications.—When labor is painful, prolonged, and there is no tendency to a spontaneous anterior rotation, other indications being present, such as exhaustion of the woman, eclampsia, hemorrhage, weakness and irregularity of the fœtal heart, showing suffering and danger to the child, we must then act promptly. We should not expose the patient and child to the dangers of a forced rotation, but without hesitation rotate with the forceps the occiput back, and deliver it at the perineal commissure, with the precautions indicated below.

Treatment.—In the occipito-posterior position, the labor may be terminated normally in two ways: Either the occiput rotates spontaneously forward, and the case does not differ from one where the occiput at first corresponded to a cotyloid cavity, except in the duration and extent of the movement of rotation, or the occiput may rotate backwards towards the sacrum. The obstetrician may imitate these two modes of delivery.

But, as the spontaneous termination of the labor in an occipito-posterior position is more favorable to the mother and child, it should be preferred. Whenever the occiput shows a tendency to rotate forward, the obstetrician may select this mode of delivery with forceps whenever possible.

Other modes may be tried, such as rotating with two fingers, pressing back of the child's ear (Tarnier), or palpation. These methods will usually fail. Some high authorities teach that the occiput should always be delivered posteriorly. Among these are Stoltz, Naegelé, Pajot and Cazeau. Others teach that the occiput, should always, when possible, be brought forward. Such is the opinion of Smellie, Depaul, Charpentier, Blot, Tarnier and his pupils.

The objections advanced against this method is the danger to the child on account of the great torsion of its neck, the anterior rotation requiring three-eighths of a circle to bring the occiput from the sacrum to the pubis. Tarnier has instituted experiments to prove that this torsion does not take place in the neck; that it extends to all the cervical and some of the dorsal vertebræ. Still, these authorities admit that there is torsion of the neck, but they claim that

clinical facts prove the safety of the method.

As for ourselves, we prefer the disengagement of the occiput posteriorly on account of the safety of the child; moreover, Lusk pertinently says that the attempt at performing an anterior rotation of the occiput usually fails. Such has been the result of my experience, and I have adopted the practice of delivering the occiput posteriorly whenever the labor had been prolonged, is painful, and no tendency exists at anterior rotation. Performed with great care this delivery is safe for the mother and child in spite of the dread of a lacerated perineum. This danger will be avoided by following in this delivery these rules.

The technique of forceps application in right occipito-posterior position and occipito-sacral position : In occipito-sacral position the forceps, applied as an anterior position of the occiput, the biparietal diameter is then parallel with the transverse diameter of the pelvis, and the occiput occupies the posterior part of the pelvis. The left blade is applied to the left side of the pelvis, the right blade to the right side. Here is an exception to the rule that the concavity of the instrument should always be applied to that part of the head which is to be directed towards the pubic symphysis, viz.: the occiput. This is a direct and regular application.

The forceps properly applied in the occipito-iliac position, obliquely, must grasp the parietal bosses very firmly, else on the attempt at flexion, the blades will surely slip forward towards the child's face, lose their hold and the needed flexion will be impossible; moreover, this slipping forward of the forceps may cause the blades to seriously cut the walls of the vagina. Rotate the occiput in the hollow of the sacrum, before making tractions.

The tractions are made backwards in order to bring the head to the pelvic floor. When it has reached it, begin the movement of forced flexion, tractions quite upwards until the occipital protuberance clears the posterior commissure, then the forceps must be lowered towards the mother's anus and the child delivered by extension, the chin, face and bregma successfully passing under the pubic arch.

By this forced flexion, the vertex clears the posterior commissure by the sub-occipito bregmatic diameter, which is three and three-quarters inches, and by the final extension by its trachelo-bregmatic diameter, also three and three-quarters inches, both being safe diameters, and safe to the perineum.

Thus will the perineum be moved. If much distended, when a laceration appears imminent, episiotomy should be thoroughly performed. To avoid laceration of the perineum, especially in a primipara, a small but most useful operation is episiotomy. But the incision, in order to be of any assistance. should be made not *transversely but obliquely* on both sides of the vulva, thus cutting through the transversus perinei muscle. The incision should be performed with scissors or blunt pointed bistoury and at least half an inch in extent. A few hours after labor, these incisions will have contracted to the size of a short line, so that there can be no entrance of septic matter through this channel. Of course the perineum is supported with two fingers in the mother's anus to assist the flexion in the occipito-sacral, and right or left occipito-iliac positions. The tractions to bring the head down to the pelvic floor are sometimes very difficult of execution and very fatiguing to the accoucheur. Here Pajot's method should be resorted to.

EDITORIAL.

THE SURGERY OF TO-DAY.

WHILE the advance made by surgery during the last two decades, or more, is to be almost wholly ascribed to Lister's innovation, it must not be inferred that success crowned every effort because of the new way. Surgeons were taught better practical surgery, entirely aside from antisepsis, and to this better surgery will eventually be ascribed the success of the more recent operators, instead of to germicidal fluids and powders, because of such properties. The favorable comparison between the results attained from the practical application of the new surgery, as compared with the old, led to the performance of untried operations; these succeeding, led on to others, until, like a rolling ball of snow, slightly broken records of success accumulated so as to form the enormous, bold, and complex surgery of to-day. The misinterpretation at the beginning, as to the real cause of the improved results, the bacterial theory, grew in the same, or even greater, ratio. This sole idea of germs took possession of every unguarded professional mind, to which it has adhered, and where it has developed to the stupendous proportions of the present. The investigations of certain bacteriologists, as for instance Pasteur and Koch, of Europe, and Salmon, of this country, while justifying many inferences and establishing many minor and very few major facts, are largely the cause of the present exaggerated estimate of the germ theory in its application to surgery. The men who least understand the value of the facts, and seeming facts, now established in this field of research, are the ones who overburden our literature on the subject, and compel a forced postponement of a mature judgment on the results of original work in this department. Unfortunately very few surgeons are pathologists of the practical kind, and *vice versa*. The same may be said, with as much truth, of surgeons being bacteriologists, and the contrary. But how seldom, if ever, do we see combined in one man the practical pathologist, the surgeon and the bacteriologist; and but too true is the fact that in most instances each man has to theorize in two of these departments while he practices the other. This is one of those instances where science would be greatly benefited by the adoption of the co-operative plan.

PUBLISHERS' DEPARTMENT.

"Crab Orchard" Water.

From the earliest records that we have of the use of medicine we find that mineral waters have always been held in high esteem as curative agents in the treatment of chronic diseases. For nearly a century the springs at Crab Orchard, Lincoln County, Ky., have been a favorite resort for a large number of persons, who, while not absolutely requiring active medication, have found in the waters of these springs a certain relief from *Dyspepsia* and many of the diseases of the liver and stomach, for which these waters have earned their reputation of being almost a specific. The "Crab Orchard" salts have been in use for nearly seventy years, but the Crab Orchard Water Co. appreciating the fact that many of the valuable properties of the water were rendered inert by the process of evaporating to dryness, now concentrate the water and offer it to the profession in this form—a fluid dram representing the equivalent of a tumblerful of the natural water. Crab Orchard Water is possibly the only natural water that has been proven to have *actual cholagogue properties*, and for this reason wherever it has been used has taken the place of almost all other natural waters—either native or foreign. Many of the most prominent practitioners of this country have borne testimony to the wonderful medicinal properties of this famous natural remedy. The Kentucky State Medical Society, in a portion of the proceedings, mentions that "after many years' experience we are convinced of their specific cholagogue properties." The late Prof. Samuel Gross used the "salts" to the exclusion of almost every other saline aperient, and the medicine has the endorsement of the great majority of physicians who have used the remedy.

Though comparatively unknown in some portions of our own country until within the last few years, physicians in New York, Philadelphia, Baltimore, Chicago, and all the prominent cities as far West as Denver and San Francisco, have within this short time placed it amongst the *reliable* of our natural remedies. The United States Dispensatory gives it a place amongst the most noted of natural waters. The medicine is in no way proprietary, and we would request physicians to give the "Water" a trial in their practice. In the treatment of habitual constipation, dyspepsia, and that class of diseases resulting from inactivity of the bowels and debility of the digestive organs the "Water" will prove to be of great benefit.

Hypodermic Injection of Listerine.

It seems strange that at this late day any observing physician should need to be told "How to use Listerine." There is, however, one mode of its administration, to which attention may yet be called. I allude to its hypodermic administration. Keeping in view the fact that it is antiseptic, tonic, non-toxic, its use is indicated in all cases of too rapid retrograde metamorphosis, or of deficiency (or perversion) of vital force. During the past four years I have proved this to my complete satisfaction. For the past four months this section has been scourged with a severe epidemic of dysentery and cholera infantum. I have used Listerine, wherever indicated, by the mouth, by rectal injection and hypodermically, and the latter method has always yielded the best results. One case from many similar ones in my call book will illustrate. Jessie—, aet. 6 months, suffering with cholera infantum three weeks, has taken many large doses of calomel, quinine soothing syrup, etc., much emaciated, dejections had an exceedingly bad smell. Surface cold and clammy, pulse rapid and very weak, stomach very irritable, cannot retain the Listerine no matter how much diluted, rectal injections do only temporary good. I apply external warmth, give hypodermically a half-drachm of a 50 per cent. solution of Listerine in rosewater; in an hour word comes that the baby is better; in six hours I repeat the injection, in twelve hours change for the better is so decided that I can give the remedy by the mouth, diluted with breast milk. It was made as strong as the child could take it. With this and good nourishment and care baby rapidly convalesced. In dysentery, typho-malarial fever, chronic "chills," phthisis, etc., whenever the pulse is rapid and weak, where a vital tonic and antiseptic is indicated, I have always used it hypodermically with positive good results. Given a case where nature seems to be overcome by a poison which she cannot eliminate with sufficient rapidity, give Listerine hypodermically, if needed, aid or stimulate the kidneys, bowels or skin, and the Listerine will soon manifest its power in a very positive manner.—F. A REW, M. D., *Portia, Ark.—Medical Bulletin.*

Peacock's Bromides.

W. H. WOLFORD, M. D., 2634 State St., Chicago, Ill.—I have used Peacock's Bromides in a number of cases with the best results, especially in epilepsy, one case in particular, S. C., a railroad man, having been compelled to quit work on account of the paroxysms coming on every day. After one week's treatment with Peacock's Bromides, the attacks were considerably lessened; now after two months treatment, he seems entirely cured and has resumed work. Any case where there is a nerve sedative indicated I can cheerfully recommend Peacock's Bromides.

Celerina.

H. A. SPENCER, M. D., Surgeon-in-Chief, Pennsylvania R. R. Co., Erie, Pa., says: "I have used Celerina and am well pleased with the result. I find it a very valuable remedy in nervous cases, and in one case of mild insanity resulting from change of life in which I had tried all the usual remedies with unsatisfactory results, I found the Celerina to control the difficulty better than anything I had tried, the patient is still using it and is, I am glad to say, improving. I am also using it in several cases of neurasthenia, insomnia and impotency, with quite satisfactory results.

From my experience I do not hesitate to commend it to the favorable notice of the profession.

A Successful Food For Infants.

DOUGLASS H. STEWART, M. D., 332 W. 47th st., New York, reports as follows: "I have made a test in above fifty cases of the Lactated Food you so kindly sent to the North-Western Dispensary for me, and can only add that in every instance there was an improvement more or less marked. I have had such poor success with foods that I employed your preparation in rather a faint-hearted way at first, but after one or two trials was convinced that Lactated Food is all you claim for it."

The committee in charge of the American Institute Fair, New York, has awarded the Medal of Superiority to the Jerome Kidder M'f'g. Company, No. 820 Broadway, New York, for their 1886 exhibit of Electro-Medical Apparatuses. For fourteen years the Jerome Kidder Machines have received the highest awards from the American Institute over all competitors, or wherever they have exhibited in competition.

Cocaine Addiction.

MR. EDITOR—If any reader of your journal has met with a case of Cocaine addiction and will send me the fullest details at his command, I'll thank him for the courtesy, reimburse him for any expense incurred, and give him full credit in a coming paper.

J. B. MATTISON, M. D.

Brooklyn, 314 State street.

EDITORIAL.

HOSPITAL MANAGEMENT.

THERE is nothing so important to the usefulness of a hospital, as an appreciation on the part of the lay and professional management, as to what should be their relations to each other. We believe it would be safe to say that a large percentage of our hospitals are crippled for the lack of this understanding.

The relations between doctor and patient, are not unlike those between a woman and the child she cares for. The sense of protection on the one side, and of absolute dependence on the other, arouse feelings akin to affection between the medical man and his most unattractive patients; remove this dependence, and you substitute at best, but a scientific general interest for a warm personal one. If the doctor is constantly harassed with complaints from his patients, which although trifling and well founded, he is unable to correct, the lessened value of his services soon becomes apparent. For example, the question of food is one that should be entirely controlled by the medical attendant, within reasonable limits. Milk and other nutritious materials are comparatively cheap, and relatively so important, that a hospital which is unable to provide them in sufficient quantity, should close its doors.

A hospital is an expensive institution, no matter how economically it may be managed, and in order to make a good appearance before the world, there is a temptation for those controlling its finances, to economize on the food and absolute necessities, and to be prodigal in less important matters that are more open to public inspection. This is particularly so in hospitals where the authority is tacitly placed in the hands of a person, whose only interests are those of a mercenary character, and these can best be served by arousing a hostile feeling between the medical and the lay management. If successful in such an attempt, he holds to some extent the balance of power. He says to gentlemen of the managing board, the doctors are extravagant, they are not regular in their attendance, they have no idea of business, and *they disregard your authority*. To the gentlemen of the medical board, he says: Mr. Jones insists upon your being more prompt in your attendance, that you use less material (less food and more medicine is the underlying idea, as medicine is cheaper than food), and that he wishes you to understand more especially that *he* is the *power in this institution*, etc. By these means a decided feeling of hostility is soon aroused and the patients suffer.

We think it is a mistake, to suppose that doctors do not understand how to apply the same business principles, that govern other callings. There is no medical man, who has seen the management of our hospitals, but that can relate many instanees of the penny saved and pound squandered, and this under the supervision of these practical men of business, who sometimes buy poor drugs, because the house that sells them ranks A No. 1 in the books of the mercantile agency!

It is not enough to point to magnificent structures of iron and stone, and tell how many hundred patients are treated yearly within its walls and how many thousand in the out-door department. Let us go into the kitchen. Do they use one four-pound chicken* for eight gallons of chicken broth? Is the food deficient in quantity and quality?

*This is an actual fact, and was observed in one of the wealthiest hospitals in this country.

Is the nursing insufficient? If these conditions exist, the fine building and annual reports, bristling with meaningless figures, are *shams*, and those in authority are guilty of criminal negligence. This seems strong condemnation to use in relation to men who, for the most part, give their services gratuitously; but let us examine the matter from the standpoint of the patient. A patient enters the hospital for the purpose of undergoing a surgical operation, or in consequence of an injury, the medical attendance is perfect, but on account of the poor quality of the food —yes, we know it is better than he gets outside—but still we say on account of the poor food, poor bed, bad ventilation and not sufficient night nursing, the operation fails, or in the case of the injury, nature is insufficient to repair the damage, and the patient has the alternative of undergoing a necessary surgical mutilation or dying. "Bless my soul!" says the stout director, "you must not call me hard names; I know nothing about the management of this establishment. There can't be anything wrong. We have the utmost confidence in our manager, and nothing is said about these matters in the annual report; in fact, the yearly meeting is a great love feast where we all compliment one another, and swell with feelings of being great benefactors to our race, and (*sotto voce*) it does not cost me much either."

The superintendent, or matron, says to himself or herself, as the case may be, I receive a small salary and one must live. The food they now get is very much better than they are used to. The doctor says to himself, this is all wrong, but I am not going to make myself obnoxious by stirring up a row. It is an ill bird that fouls his own nest. Besides, I don't believe that all I could say would accomplish anything. When any one protested in the past, against the present state of affairs, it came to nought, except that the gentleman was "frozen out" and he was generally regarded as one of those ill-bred persons who *will* make trouble about principles.

The House Surgeon says to himself every hand is against me. I only obey orders. If my visiting staff can ignore the things that I constantly call to his attention, I suppose I can do the same.

A most glaring instance of lay interference, if the report be true, comes to our notice from the Brooklyn press, in the report of an interview with a Doctor Marinus, of the Long Island Medical College. He states that the Chairman of the Executive Committee, with an unpronounceable name, refused his order for a pint of milk to a man in a very low state from delirium tremens, *after the necessity for its use had been explained by the attending physician.* Ye Gods! Do the visiting physicians of the institutions of Brooklyn have to explain the necessity of an order for a pint of milk? Dr. Marinus also states that this same man ordered the removal of a patient suffering from peritonitis, in its early stages, from one room to another, contrary to the protests of all the physicians. Can it be that these and many more statements cited in this interview can take place in the nineteenth century!

While all the blame for the faults of the present system does not rest with the board of managers, we believe many boards have indirectly to answer for much inhumanity. And while hospitals have improved very much, like many other institutions, there are still many radical changes that might be made for the better.

Let us look back as a matter of curiosity, to the condition of two French

hospitals Salpétrière, and Bicêtre, in the seventeenth century, and read the description of their condition, obtained from the report of the surgeon in charge, in *memoirs* addressed to the government unsuccessfully for two years. The patients were cheated of the food allowed them, and supplied with cheap broth and cheese in their stead. Eight women slept in a bed, and in the room appropriated for those whose turn for treatment had not come, the patients slept by gangs, one-half sleeping from 8 P. M. to 1 A. M., and the remainder from 1 A. M. to 7 A. M. There was but little linen, and that was in rags and abominably dirty. Many died before they reached the hands of the doctors. It was a rule that no person could claim admission until a complete year had elapsed from the time of their first application, and every diseased person was turned out, whether ill or well, after six weeks' treatment.

We believe the responsibility of men holding positions of trust in these charitable institutions is not altogether recognized by the present laws, if this be so, it certainly is a cruel oversight.

BOOK REVIEWS.

THE LAWS AND MECHANICS OF CIRCULATION, WITH THE PRINCIPLE INVOLVED IN ANIMAL MOTION. By Wm. H. Triplett, M.D., &c. Published by J. H. Vail & Co.

This is a full sized octavo volume of 510 pages solid reading matter, and contains 216 wood cuts, very many of which are original. The type is large and clear.

It is a source of no little gratification to us to be able to signalize the birth of this book. It is in advance of the times. This we say deliberately. It is strikingly original. The author justly holds the prevailing modern methods of teaching physiology to be wrong. Text books on physiology are nothing more than a collection of facts and pseudo-facts. Efforts are made at systematic arrangement, but every effort is a failure. Dr. Triplett teaches that physiology should be taught as a connected whole without artificial divisions. He properly condemns the division of books on physiology, for instance, into the three sections, Nutrition, Nervous System, and Reproduction, because it is immaterial. He begins his book with the consideration of force and its various manipulations. With this he considers the mechanics for producing circulation in air and water, and for connecting them with circulation in living things. Then follow chapters on the floral and animal circulations. Next he considers the development of respiration and its phenomena in mammalia. Then follow the consideration of the relations of circulation and respiration, beginning with the lowest forms and ending in man gradually, and in logical sequence all the other processes are taken into consideration. The nervous system comes in for a large share of deserved attention. He also brings out strongly the independent automatism of the circulation and respiration of the tissues. His discussion of muscular contractility is masterly, as is in fact his handling of the whole subject.

Dr. Triplett deserves the gratitude of the profession for having given up practice years ago, to be able to devote all his attention to the present work, which is but a brief epitome of his exhaustive and wonderful labors. Besides sacrificing all his time, he has devoted his entire means, and they were considerable, to the furthering of his studies and our general gain.

The work is a philosophy of anatomy and physiology, especially with reference to respiration and circulation, by means of which the body is built up and actions are produced, showing the relations they sustain to pressure, and the import of the regular rhythmic movements which accompany and characterize them. He holds that muscles have the dual property of active expansion and contraction. This view is also held by Daniel Ayres, of Brooklyn, and Montgomery, of Texas, besides others. Present physiology is incompetent to explain all the anatomy and the vital phenomena, for the reason, simply, that it deals with no general principles upon which to found the mechanics of our bodies. Triplett deals in these principles, and makes anatomy and physiology a sensibly connected whole,

and this is what no other physiology has hitherto accomplished.

The success of this work will be marred by the faulty style of its author. It is difficult to read in places, but this is the only essential defect in the whole work. We predict for it a hard but undeserved struggle and eventual success. Like all philosophical works, it must be carefully read from the beginning, especially since it is very original in its general plan as well as detail. New and original experiments and illustrations are plentiful. Lack of space forbids the more extended notice which this probably epoch-making book deserves. We extend to its author our heartiest congratulations and best wishes for a well merited success. The book should be mastered by every true student and would-be master of our art.

OUTLINES OF THE PATHOLOGY AND TREATMENT OF SYPHILIS. By Hermann Von Zeissl, M. D., and Maxmilian Von Zeissl, M. D. Translated by H. Raphael, M. D. Published by D. Appleton & Co., New York.

The second edition of this well known book requires hardly any introductory notice. As regards general excellence of arrangement and the handling of the subject, the work of the father has been improved by the son. Many parts have been wholly re-written, others have been left out to make room for more important clinical descriptions and for purposes of condensation. Several articles on the larynx, trachea and eye, were specially written for this book by Professors Von Schrolter and Manthner. On the whole the book is a sufficient improvement upon the first edition to warrant its purchase by those who are acquainted with the first edition. The book has a copious table of contents, is well indexed, and is printed in large, clear type on heavy calendered paper. It is an octavo volume of over 400 pages.

PUBLISHERS' DEPARTMENT.

Emulsion of Cod Liver Oil in the Hypophosphites.

Scott & Bowne, manufacturing chemists of New York, make a specialty of producing an emulsion of cod liver oil with hypophosphites. Their great care in selecting the oil and in making the combination is amply proven by the high therapeutical value set upon the emulsion by the profession. It is no new remedy but has been steadily growing in demand for a number of years. It is certainly very useful in restoring wasting tissue, and in cases of scrofulous children it acts almost as a specific. They also offer a Buckthorn Cordial which is highly useful in the treatment of constipation.—*Massachusetts Eclectic Medical Journal.*

Fairchild's Peptogenic Milk Powder.

Messrs. Fairchild Bros. & Co., of Fulton St., N. Y. City, one of the most reliable houses in the country, have recently put upon the market a preparation known as "Peptogenic Milk Powder," a most valuable addition to this branch of agents for preparing food for immediate assimilation. We have recently and for some months past used this preparation in our practice, especially in cases of continued fevers and wasting diseases of various descriptions, where a *carefully* and *fully* digested food was the *sine qua non.* In every case it has fully equalled our anticipations, and milk prepared with the powder has never been rejected by the patient as unpalatable. In fact, in the majority of instances the sufferer has not discovered the presence of any foreign substance—a very important matter, especially in typhoid fever cases, where there is almost anorexia and an utter dislike for everything in the shape of food. We believe that no better diet for cases of the character last mentioned has yet been discovered than milk peptonized, and prepared according to the formula furnished with Fairchild's preparation. We recommend those of our subscribers who have not already availed themselves of a trial of this preparation to do so. Messrs. Fairchild Bros. & Co. will gladly forward samples to any of the profession who may wish to make a careful investigation of its merits.

Annals of Surgery.

Few journals confined to a special department of medicine, have attained to the standard of excellence of the *Annals of Surgery,* and none surpass it typographically or in point of original matter and studied editorials. Every physician who practices surgery, should subscribe for this journal.

EDITORIAL.

OUR DISPENSARIES.

Among eleemosynary institutions, none, perhaps, are more misunderstood and their usefulness more misrepresented, by those in authority, than these institutions, which, to-day dot our larger cities and under the plain *soubriquet* dispensary—or, it may be, this suggestive, homely title preceded by the name of some worthy benefactor—undertake to supply medical and surgical aid to the worthy poor.

In this article we particularly refer to those dispensaries which are unassociated and not immediately connected with any hospital, although the statement "*and hospital*," on their large, gilded signs would, no doubt, mislead the uninitiated.

The first question we would ask is,—are the people who apply for medical relief, as a rule, unable to pay for such relief a fair compensation? From our personal knowledge based upon a careful observation, we would say positively, that at least fifty per cent. are not only abundantly able to pay, but in many instances these applicants for charity are owners of *real estate* and are trying, no doubt, to become pensioners on the very fund, which an *unjust tax* (in their mind) has created.

A striking illustration of this recently occurred in the City of Boston, where, according to the *New York Medical Journal*, a woman presented herself for treatment at one of the dispensaries and by some method of investigation peculiar, no doubt, to the Boston investigator, but nevertheless commendable, it was ascertained that this mendicant had upon her person bills and bonds amounting to ten thousand dollars!—almost enough *principle* and capital, we should say, judging from recent observations in this section, to qualify the party for a position as one of the trustees of the institution, has her aspiration been in the line of *succoring* rather than receiving charity. On the other hand, we believe that there are hundreds of those who may be justly called worthy poor, dying without needed medical aid and the necessities of life, who, through previous position or a knowlege of the existing state of things at the average dispensary, prefer dissolution to the solutions dealt out—fortunately there has a *genuine* charity grown up, which is now certainly administering to the primary need of this class—we refer to the DIET DISPENSARY; a charity, as far as we can ascertain, which is ably and conscientiously conducted and which must be a valuable assistance to the physician in his honest, although unrequited ministrations.

The second question that naturally follows is—can those who apply, obtain a careful diagnosis of their case, proper treatment and medicine? We answer, in a large majority of cases, no. The reasons are many and obvious. In the first place, the usual allowance from the city is insufficient to pay the rent of a place large enough to admit of proper subdivisions of the clinic and also provide for the other requisites, such as medicine, instruments, etc. The answer naturally comes—"but the trustees will come to the rescue and any deficiency will be gladly met." We answer—the average trustee never makes this mistake but once, and that is when he pays his five dollar initiation fee—fortunately large public benefactors, when their attention is drawn to matters bearing on this subject seek a more useful channel than the one thus afforded, where they enjoy only the questionable reward of having their names paraded annually in

the local papers under an array of more questionable statistics. In the second place, the physicians who offer their services, do so after learning that they are to be seconded by an able corps of consultants, whose names they subsequently find, appear in the annual report—*only*—deceived, they prescribe carelessly, attend irregularly, and on the recommendation of an overworked druggist ultimately adopt a routine formulary (bequeathed to the institution no doubt by their unfortunate predecessors) which is a routine course to every young practitioner and not much better to the patient.

The third question for consideration is—Where there are so many small dispensaries, can enough liberal and conscientious citizens be obtained, who will interest themselves sufficiently to correct these and many other existing evils? We have anticipated, somewhat, our answer in previous statements. However unfortunate it may seem, we believe it will be conceded that the majority of these institutions are run by one or two insectiverous individuals who, posing before the public as philanthropists, contribute nothing but discord to the lay and professional management. In our judgment no institution of this nature can be successful where the trustees are anything but a financial board.

In conclusion, we believe that every dispensary which has simply as a cause for its existence the routine dispensing of drugs to any who may apply and which has no immediate connection with a hospital where patients in need can be retained and properly cared for, is a public nuisance and should be closed.

As a substitute we would suggest the advisibility of using the money thus expended in supporting a free general hospital, where applications can be made by tickets furnished by the proper officer in the immediate district and certified to by a duly authorized physician leaving in every case the choice of attending physician to the sufferer, who, upon assuming charge of the case, would be assured of competent nursing and consequently more satisfactory results, viewed from whatever standpoint. The adoption of this plan, which space at this time prevents our elaborating, would result in the needy alone getting relief; and would effectually eliminate that class of so-called dispensary "*rounders*," who take medicine as the old lady takes tea, simply from "force of habit."

A knowledge of this fact would stimulate those replete in this world's goods to encourage the good work by large donations, instead of building smaller memorial hospitals, and ere long an institution would be founded of grand proportions which would be a god-send to the student and patient alike.

Cases of Skin Eruptions and Syphilis Treated with Horsford's Acid Phosphate. By Mr. James Startin, late Honorary Surgeon and Lecturer, St. John's Hospital for Skin Diseases, London; Honorary Consulting Surgeon to the Sheffield Public Hospital for Skin Diseases.

It appears to me that the "Acid Phosphate" originally prescribed by Prof. Horsford, of Cambridge, U. S. A., is not so well known in this country as its merits deserve. A glance at the formula will however readily convince one of its value in suitable cases. Each fluid drachm gives on analysis 5½ grains of free phosphoric acid, and nearly four grains of phosphate of lime, magnesia, iron and potash. The following are a few brief notes of some of the cases in which I have prescribed it with complete success.

Mr. G., æt. 69, consulted me November, 1885, for eczema on the arms, legs, palms of the hands, and trunk. The patient complained of much debility and nervous exhaustion, and he was a man who had led a very busy business life, with much worry. In December, 1885, I prescribed Horsford's acid tonic with much good effect, as in February, 1886, I heard that he was quite well.

Mrs. S., æt. 46, consulted me in December, 1885, for psoriasis, all over the body, more or less, especially on the legs and arms. In January, 1886, I prescribed a teaspoonful of the acid tonic three times a day with marked good effect. Patient had been much exhausted by continuous nursing on an invalid mother.

Mr. C., æt. 64, consulted me in September, 1885, with one of the worst attacks of late syphilis I ever saw. After he had been relieved from the distressing symptoms and ulcerations, I prescribed the acid tonic for epileptiform fits from which he suffered, with excellent results.

Mr. McJ., æt. 63, consulted me in November, 1885, for lichen ruber, which was accompanied with intolerable itching. He was a nervous irritable man. I prescribed the acid tonic with the effect that in December he presented himself quite convalescent.—*Medical Press, London, Eng.*

THERAPEUTIC NOTES.

An Interesting Observation.

By Prof. Marius Odin, M.D., Nice, Chevalier of the Legion of Honor, etc.

Madame de G., of Austrian nationality, 25 years of age; married; no children; average constitution; lymphatic temperament; sent for me February 2, 1884.

I was struck at first sight with her pallor; her skin and the mucous membrane of her eyelids and lips were quite colorless.

This young woman complained of weakness and general atony, cephalagia, dizziness, vertigo, tendency to lipotynie, caused by sorrows, sitting up late at night, and generally depressing influences. There was gastralgia, with alternate constipation and diarrhœa. Menstruation was irregular, and an abundant leucorrhœa was accompanied with gastralgic exacerbation. Her pulse was weak and depressible; there was a blowing sound with the first heart-beat; very accentuated in the carotids. On auscultation I found weak respiratory murmurs, much prolonged expiration; dry and jerking cough. There was insomnia, and a tendency to night sweats.

Everything had been tried—tonics of all sorts, arsenic, iron, quinquina could not be borne; hydro-therapeutics had given no results.

I prescribed for Madame de G. the Vin Mariani Erythroxylon Coca, from which I had had much satisfaction on several previous occasions, but which I had never used alone.

Want of appetite being one of the chief symptoms, and this keeping her general condition at a low ebb, I gave her a few doses of rhubarb, which, however, modified the situation but little. From that time I prescribed the Vin Mariani in doses of a claret-glassful, morning and evening, a quarter of an hour before meals.

At the first doses Madame de G. complained that it increased her dizziness. I assured her that this was a salutary and even necessary first effect of the medicine, and she consented, not without reluctance, to continue the use of the Vin Mariani. At the end of eight days there was a notable amelioration. Appetite appeared, food was taken, and the digestive functions were becoming more regular—day by day. I then advised the patient to increase the dose of Vin Mariani by two more glasses per day, either after meals or between—whenever she had to undergo some exceptional fatigue.

Madame de G., who has since then resumed her daily occupations, tells me that, thanks to the medicament, taken at proper times, she can sustain without fatigue, long conversations, and at the same time her vocal powers have acquired ampler development. At the end of a month's treatment, her state was most satisfactory; there remained a slight blowing with the first heart-sound, which, however, was disappearing, and was not perceptible in the carotids any more.

This observation seemed to me very interesting and conclusive in this respect, viz.: that it shows the action of the Vin Mariani, when administered without any other medicament, and, what is no less interesting, it shows its useful effect upon the vocal organs—a fact first determined by the eminent specialist, Professor Charles Fauvel, who has given to it the name of "Tensor of the Vocal Chords."—*Gazette de Therap.*

Bromidia.

[Extract from an article by William B. Hazard, Prof. Principles and Practice of Medicine, Col. Phys. and Surgs., St. Louis.]

It is a well known fact that there are druggists in every large city who are not to be trusted with the filling of a prescription that calls for any expensive drug. They come and go, so that at last physicians are compelled to designate certain of the drug fraternity as trustworthy, and insist upon their patients going to these alone for their medical supplies.

A few cases from actual observation and experience will illustrate this better than a volume of argument.

1. Thirty grains of quinine, in three doses, to be taken at hourly intervals, were prescribed for a young man suffering from ordinary intermittent fever. The doses were taken as directed, but no signs of cinchonism were induced, and the disease progressed without change. The same doses, in "Warner's sugar coated pills" were ordered, with the effect of inducing well marked cinchonism with cure of the disease.

2. In a case of profuse menorrhagia, one ounce of fluid extract of ergot was ordered, with directions to take one fluid drachm every hour until the hemorrhage ceased. The entire amount was taken without result. An ounce of "Squibb's fluid extract of ergot" was ordered—same directions, and the flooding ceased after the second dose.

3. Four ounces of a mixture of bromide of potassium and chloral, each an ounce, with tincture of hyoscyamus and fluid extract of cannabis indica, in appropriate doses, were ordered, with directions to take one teaspoonfull every hour until sleep should be induced. An ugly, muddy mixture was received, which produced nausea and headache, but no sleep.

A similar prescription instead of the above extemporaneous officinal combination, was ordered, only "Battle's BROMIDIA" was designated, which induced refreshing sleep after a few doses of from twenty to thirty drops had been taken.

Improved American Pocket Battery.

Cleveland, Ohio, Feb. 23d, 1884.

Office of E. M. Hessler, Manufacturer, Importer and Dealer in Surgical Instruments, 68 Public Square.

The Electro Medical Battery Co., Kalamazoo, Mich. :

GENTLEMEN—In reply to your inquiry, I have to say that since I have had the agency of your Improved American Pocket Battery, we have shown them to physicians alongside of the Gaiffe Battery, offering both at the same price; as to the general appearance of the machines they have given yours the preference, and so far as I have heard, they have given entire satisfaction. All acknowledge the machine in construction superior, and it is American made, which fact alone ought to, and does give it the preference. Yours, truly, E. M. HESSLER,

Papine.

DR. THOMAS LITTLE, of Spirit Lake, Iowa, in comparing Papine with other forms of opium, says:

"I have been using Papine for the past two months. It meets the requirements of a class in which opiates are indicated, but in which the 'remedy is worse than the disease.' One case in particular has given me a great deal of trouble for years. I have tried opium in every form, and many other narcotics, alone and in combination; but constipation, nausea and nervous prostration have been the invariable results. Some two months since I obtained some Papine and commenced on this case with the happiest effect; no nausea, no constipation, no prostration. I have been prescribing it in my practice since with the greatest satisfaction to myself and my patients."

Planten's Capsules.

H. Planten & Son, 224 William St., N. Y., will send samples of their capsules to physicians if MEDICAL DIGEST is mentioned.

Crystalline Phosphate.

Buffalo, New York, Sept. 27, 1886.

PROVIDENT CHEMICAL W'KS, ST. LOUIS, MO.:

Gentlemen—Some time ago you very kindly sent me a box of your Crystalline Phosphate.

I have not had opportunity, heretofore, to give you expression of opinion regarding it. Now that I have given it a fair trial, it gives me great pleasure to say that it certainly is a most excellent preparation, and one of undoubted value in the class of diseases for which it was and is intended.

C. T. WOLSEY, M. D.

Maltine—Cascara Sagrada.

The combination of Maltine with Cascara Sagrada is worthy a trial by the profession. The value of Cascara Sagrada has been tested in cases of obstinate constipation; combined with Maltine it would seem that an agreeable laxative would be the result, the former acting as an aperient while the latter adding tone and strength to the system. Those willing to pay express charges and mention MEDICAL DIGEST, will be furnished with free sample on application to the Maltine M'f'g Co., 182 Fulton St., New York.

Lambert's Lithiated Hydrangea.

Has grown into permanent favor with the medical profession in the management of all diseases of the uric acid diathesis. Rheumatism, gout, gravel and kidney ailments, dependent upon the excess of uric acid in the system, rapidly yield under the administration of Lithiated Hydrangea.

Prolapsus Uteri, Leucorrhea.

I have used Aletris Cordial (Rio) with the happiest results, in an aggravated case of Prolapsus Uteri and Leucorrhea of three and a half years standing. The patient is now using the second bottle, and it has given her more relief than any other medicine before prescribed. I am so favorably impressed with it that I shall prescribe it in all cases to which it is adapted in the future.

Cincinnati, O. S. MONG, M. D.

Rigollot's Mustard Plaster.

Send to E. Fougera & Co., 30 North William St., New York, for samples of Rigollot's Mustard Plaster. Mention MEDICAL DIGEST.

Fellows' Hyphophosphites.

If you have not tested Fellows' Hypophosphites, send to James I. Fellows, 48 Vesey St., New York, for a sample bottle and mention MEDICAL DIGEST.

EDITORIAL.

METHOD IN THE STUDY OF MEDICINE.

In no other department of the natural sciences is philosophy so necessary as in ours, yet how few avail themselves of its benefits. In most other lines, it is necessary to remember written formulæ, axioms, and, in some studies, lines and even whole pages of some of the modern languages, or Greek and Latin. The medical student is required to retain the *sense* or import of what he reads, in fact it is to his advantage not to recall the words of the book and the part of the page upon which they are printed. His is a study of facts and their relations. His whole study, therefore, calls for reasoning at all times, and is generally philosophical. It is therefore of the utmost importance that the student of medicine have a trained mind accustomed to good logical reasoning. This is the first requisite of methodical study.

In the next place, it is essential to bring every subject before the learner in proper sequence. All our present methods are very defective, but considerable advance has been made over older ways. Perfection is not to be attained in so complex a matter as instruction in the Science and Art of Medicine. Much of the best work will necessarily always have to be done by good preceptors. A man may have been at college for four years, and if he has not good private advice, his first year at a medical school can never be as well utilized as might be with proper guidance. One great defect is in having so many artificial divisions, thus compelling the erroneous idea that each division or department is a separate entity more or less distinctly divisible from the others. Upon entering college one gets the impression that the preliminary studies of Anatomy, Physiology, Chemistry, Materia Medica, Histology and Physics are entirely separate and distinct, and unfortunately this idea, as a rule, is not changed in after life. In his last session the student is confounded with Surgery, Practice, Obstetrics, Gynæcology, Therapeutics, Pediatrics, Otology, Ophthalmology, Rhinology and Laryngology; add to this Hygiene, Dermatology, Syphilography, and venereal diseases generally, and still we are not at the end. How many of our able teachers ever impress it upon a student's mind that all these are but artificially disassociated parts of a great whole? We know of very few such *thinking* men and they are never appreciated.

What is the remedy? It is to first acquaint the student with the normal body. This includes, to the minutest detail, the structure of all its parts, their separate and combined workings, and their relations. Attention should be drawn to the general plan of the body, its cell aggregations, the means for their support, their nourishment, their respiration and drainage, and the disposal of their utilizable products. This is anatomy and physiology. With this may be studied the actions of drugs, physics and chemistry, if not already done. Up to this point, a student is enabled to diagnose disturbances of structure and function, *i. e.*, can locate and to a certain extent estimate disease.

The next step is to teach the perversions of structure and functions of the body, *i.e.*, pathology, or, in other words, "the origin, course and terminations of disease." A close study will then reveal that this great distinction between the normal and abnormal is only arbitrary, for the abnormal, so-called, is only relatively so. All processes are normal in the sense that they obey nat-

ural laws. Hygiene has its place in prophylaxis, determined by studying the origin or cause of disease. The ologies will, in the face of the scheme just briefly outlined, fall away as idle and meaningless. Learn the anatomy and physiology of the eye and then its pathology, add to this a knowledge of materia medica and therapeutics and we have a full fledged ophthalmologist. Can that man treat a special part of the body as well, who knows little or nothing of its other parts and their relations, as the one who is familiar with all the parts? There is but one answer.

BOOK REVIEWS.

APHORISMS IN DISEASES OF THE RECTUM. By W. E. Ryan, M. D. Isaac Friedenwald, publisher, Baltimore, Md.

This little work, as its title indicates, contains an epitome, together with numerous illustrations, of the diseases connected with the rectum. Although not pretending to be to any extent original, the author has collected and presented in a very concise and original form many if not all the facts which could be of advantage to the busy practitioner in his dealings with the various diseases of this region. The celebrated Allingham has been closely followed in this work, which has been acknowledged by the author and adds greatly to its value.

POCKET MEDICAL FORMULARY; arranged Therapeutically. By Alexander Hazard, M. D., and Bernard M. Goldberg, M. D. Revised and enlarged by Abraham S. Gerhard, A. M., M. D., Professor of General Pathology, Medical Jurisprudence, and Clinical Medicine at the Medico-Chirurgical College, Philadelphia, Pa. WITH AN APPENDIX, containing Formulæ and Doses of Hypodermic Medication; a Table of Eruptive Fevers; and Poisons, their Symptoms, Antidotes, and Treatment. Office of Medical Formulary Publishing Company, 1208 Chestnut Street. Drs. Hazard and Goldberg, Managers. Price, $2.00.

The special features and advantages of the above work, over all others, are as follows:

First.—The Alphabetical Arrangement: on a therapeutic basis.

Second.—The Patent Index: Enabling the busy practitioner to turn at a moment's notice to the needed formulæ.

Third.—Compactness: Bound in flexible morocco, style tucks, will fit a very small pocket.

Fourth.—The American formulæ: This is probably the only work of the kind containing formulæ used by our prominent American physicians, other works of a similar character being compiled almost entirely from foreign authorities.

Fifth.—Extra Blank Leaves: On which you can record your own formulæ, and thus having them in alphabetical order and indexed, you will not be obliged to rummage each of your pockets in search of the same.

Sixth.—The Host of Authorities: Over 400 of the most eminent physicians, both American and foreign. Each formulæ credited to whom it belongs.

Seventh—Economy: The time and labor saved by using this work is considerable, to say nothing of the convenience and relief of mental strain!

Eighth.—Final: In fact the work is a valuable assistant to the busy and hard-worked practitioner, and invaluable to the recent graduate, who, above all others, cannot afford to be without it.

Exclusive of its valuable appendix, the work contains, in its 312 pages, 1100 formulæ.

An examination of these facts, as well as a careful perusal of the work, will, we are sure, satisfy our subscribers of the value of this work to the busy practitioner.

POTTER'S MATERIA MEDICA, PHARMACY AND THERAPEUTICS. A Handbook of Materia Medica, Pharmacy and Therapeutics—including the Physiological Action of Drugs, Special Therapeutics of Diseases, Official and Extemporaneous Pharmacy, etc., etc. By Samuel O. L. Potter, M.A., M.D., Professor of the Practice of Medicine in Cooper Medical College, San Francisco, late A.A. Surgeon, U.S. Army, author of "An Index of Comparative Therapeutics," "Speech and its Defects," and the "Quiz-Compends" of Anatomy and Materia Medica, etc. Nearly 800 pages, cloth, $3.00; leather, $3.50. P. Blakiston, Son & Co., 1012 Walnut St., Philadelphia, publishers.

The title of this volume, together with the summary given above, contains no epitome of its character. Many of the younger practitioners at least, will, we are sure, take advantage of their first opportunity furnished by that publishing house (which now and always heretofore have had in mind the wants of the American practitioner perhaps in a greater degree than any other dealers in medical publications) to obtain and make themselves acquainted with this last work of Dr. Potter. His Quiz-Compends are now the *vade mecum* of almost every student, and one so familiar with the wants of the student cannot fail to give the busy practitioner a work on the subject of Materia, Pharmacy and Therapeutics of inestimable value, and such is our verdict after a careful perusal. This work comes too, very opportunely in point of time, when the one general cry throughout the cities, among physicians at least, is, "How are we going to prevent druggists prescribing and renewing *ad libitum* prescriptions?" The answer is contained in this little handbook—by educating the practitioner in the more general details of pharmacy and thus preparing him to compound his own prescriptions, which, we are sure, will be to the material advantage of both prescriber and the one prescribed for.

The indexing of this work has received

especial care and compares favorably with that other excellent work by Dr. Waring, included in this series of manuals. This work, only claiming to be an outline, comes very near being a treatise, and we are sure it will be rewarded with the extensive sale it so thoroughly and unqualifiedly deserves.

ELEMENTARY MICROSCOPICAL TECHNOLOGY. A Manual for Students of Miscroscopy, in three parts. By Frank S. James, Ph. D., M. D., Pres. St. Louis Society of Microscopists. St. Louis Medical and Surgical Journal Co., publishers.

Part first, of which we are in possession, contains the tcehnical history of a slide from the crude materials to the finished mount.

Any one who has observed, as we have, the character and enterprise of the *St. Louis Med. and Surg. Journal* could readily imagine that anything from the hands of Editor James could not help being thoroughly readable, instructive and scientific on this subject of his choice, and such is the case with this little work on microscopical technology. It is plain, concise in statement, well written, typographically perfect, and just the work for the student in microscopy.

TRANSACTIONS OF THE ASSOCIATION OF AMERICAN PHYSICIANS.

As is indicated, this volume contains the papers and a record of the transactions of the Society of American Physicians at its first meeting, held at Washington, D.C., June 17 and 18, 1886. This organization consists of one hundred active members only, and from the character of the names enrolled, cannot help but wield a mighty influence on the medical thought and progress in this country.

HAND BOOK OF PHARMACY AND THERAPEUTICS.

This little book, prepared by the celebrated drug house of Edward Lilly & Co., of Indianapolis, Ind., is sufficiently indicated by its title, and the examination of it will convince anyone that it has been carefully prepared and contains many valuable hints on pharmacy and therapeutics, which are the result of modern and painstaking investigation. Our subscribers should not fail to write for a copy.

FIELDS' MEDICO-LEGAL GUIDE. By George W. Field, LL.B. Banks & Brothers, publishers, 144 Nassau St., N. Y. City.

This so-called guide contains within its covers a short and concise discussion of the following subjects: Medical witnesses, medical expert testimony; insanity and its legal relations; privileged communications; abortion; civil liability of medical men for malpractice; criminal liability for malpractice; liability for practicing in violation of statutes; damages, compensation and medical ethics. Although we are not familiar with the legal aspects of the several subjects treated, still we are sure if the statements from the side of the law are as accurate as those bearing on the medical subjects, this little book will be a valuable addition to every physician's library; in fact, more valuable than a so-called treatise on the same subject, for a work of this kind should be adapted for ready reference only, leaving the more intricate and knotty questions for the elucidation of the legal adviser. For this purpose we are positive the little volume fills a long-felt want and believe it will receive the reward of a large circulation among busy practitioners which, from a careful perusal, we are positive it merits.

GILL'S SANNE ON DIPHTHERIA, CROUP, AND TRACHEOTOMY. By Henry Z. Gill, A. M., M. D., LL.D. J. H. Chambers & Co., St. Louis, Mo., publishers.

No one will doubt that is a *treatise* on Diphtheria when we state that this work contains six hundred and fifty-six pages, and is fully as large as Flint's Practice of Medicine.

The translator, Dr. Gill, has added much to the author's work, and opens with a chapter on Surgical Anatomy of the pre-tracheal region, with special reference to tracheotomy in children. In this chapter he quotes extensively from an article by Dr. L. S. Pitcher, published in the Annals of Surgery sometime since. The work closes with fifty pages on Intubation, including its history, illustrations of instruments employed, and the literature on the subject up to date. The vast amount of labor necessary for Dr. Gill to translate a work of this character and thus bring it within the understanding of every American practitioner, cannot be, we fear, fully appreciated except by those who have undertaken a similar task, and for this reason, if for no other, it should receive an extensive sale, and thus, in part, reward both publisher and translator alike; but when we come to consider that nearly fifty thousand die annually from this fell malady, we begin perhaps to appreciate the philanthropy of an undertaking of this kind on the part of one of our fellow practitioners as well as the crying necessity of a more thorough knowledge of its character and treatment. That this work will be appreciated by those who are fortunate enough to possess, it goes without the saying; and we trust that if not all at least as many as possible of our readera will avail themselves of this opportunity and possess the work *par excellence* on the subject of a disease which is as far reaching as it is fatal.

THE NURSING AND CARE OF THE NERVOUS AND INSANE. By Chas. K. Mills, M. D., etc., etc. Published by J. B. Lippincott & Co., Philadelphia, 1887. 8vo., pp. 147, with 14 illustrations.

This little book is very neatly gotten up and touches upon subjects not mentioned in similar works. Dr. Mills lays special stress upon the qualifications of nurses attending patients suffering with either functional or organic forms of nervous trouble not forms of insanity. The book is composed of four chapters, being a reprint of a series of lectures delivered at the Training School for Nurses of the Philadelphia Hospital, and at the Woman's Hospital Training School for Nurses of Philadelphia. The first chapter is devoted to a consideration of some of the personal qualities and qualifica-

tions of nurses for nervous cases, and to certain miscellaneous matters in connection with nervous nursing. In the second, he treats of massage, movement, bathing, and certain instruments, as, for instance, muscle beaters. The third chapter is devoted to electricity, while, in the fourth, exclusive attention is given to the nursing and care of the insane. The book is a valuable one, and should be read by every nurse as well as by physicians who realize the importance of extra-medical influences and agencies in the cure of disease.

THE OLEATES. By John V. Shoemaker, A.M., M. D., etc., etc. Published by F. A. Davis, Atty , Philadelphia, 1885.

This handsomely printed monograph of 121 pages is compactly written. Its great merit lies in the fact that the author makes every effort to give this class of remedies their true value. He claims nothing for them but local effects, and for some a special ability to reach the bottom of the hair follicles and thus be of decided service in diseases of the hair. The book is as temperate as any we have ever seen, and its perusal will convince the most skeptical that the oleates appear to occupy a field in local medication that is wholly their own and that they should be given a good trial. We hope that Dr. Shoemaker will soon be able to give us more detailed information in another edition of his valuable little brochure.

THE RATIONAL TREATMENT OF RECTAL DISEASES. By G. W. Powell, M. D., Moriah, N. Y.

In another portion of this journal will be found an illustration of Dr. Powell's apparatus, which he has for several years used in connection with the treatment of diseases of this region. We have recently had occasion to use Dr. Powell's speculum and can highly recommend it for the purpose intended, namely, the investigation of diseases in the anal region. Dr. Powell has also written an instructive and interesting article on the treatment of the various diseases of the rectum, which we have read with interest and instruction. He gives many useful formulæ and an interesting résumé of the several methods of investigation adopted by himself and employed by other specialists in this line. We commend the doctor's treatment to our readers.

BOOKS RECEIVED.

PENNSYLVANIA. Report of the State Board of Health, 1885.

NATURAL LAW IN THE BUSINESS WORLD. Chas. T. Dillingham, publisher, N. Y. City.

PUBLISHERS' DEPARTMENT.

Pre-Digested Food.

THERE is a prejudice against prepared foods, quite general, but disappearing; a prejudice born of ignorance, like most others. The medical profession already regards them as useful, almost invaluable for infants and invalids. Necessity—the mother of invention—has led to the adoption of artificial digestive agents in cases of weakness and failure of the digestive powers.

The body demands for its sufficient sustenance, for the muscles—food rich in nitrogen ; for the maintenance of animal heat—carbonaceous food; for the brain and nerves—phosphates. We find albumen in the muscles and flesh, and so it is necessary for the building up of tissue. But when the liver is deranged, the digestion of albuminoids cannot properly be performed, hence only in a predigested form can it be assimilated.

Albumen is found in milk and in smaller proportion in cereals, as the gluten of wheat. Phosphate of lime is required for the bones, and is furnished by cereals and milk. Milk sugar is a desirable need for old people and children, for obvious reasons.

" Baby foods " generally lack fat; fat is essential to healthy tissue, and therefore foods containing milk are the most complete, as from the milk a certain amount of fat is present, and then they are the most palatable. The principle which should underlie all baby foods is the conversion of insoluble starch into soluble matters to prevent its irritant presence setting up diarrhea for its removal. When cereals are cooked by high steam heat, the starch transformation into soluble dextrine is more complete. And as the digestive organs become enfeebled by the advance of civilization, pre-digested starch must come more and more to the front. Babies have their choice of food just as much as their elders, and they show it by rejection of one food and delight in another. As they also show ability to digest and assimilate easily and thoroughly the food. But because one kind or form of prepared food is distasteful and disagreeable, it does not follow that all are so. Wells, Richardson & Co., of Burlington, Vt., manufacture " Lactated Food," which is a restorative and constructive in various conditions of the system. It is meeting with great success in the diet of invalids and children, and is received with approval by food experts at home and abroad.

Analysis shows its component parts more nearly similar to mother's milk than is cow's milk. Its nutritive elements are derived from the three great cereals, Wheat, Barley and Oats. From Wheat is taken the pure gluten ; from the Barley, all the soluble albuminoid and extractive matter resulting from the most careful malting; and from the Oat, the strengthening properties for which it is so well known. It is assimilated by the feeblest stomach, and no undigested particles pass into the bowels to irritate, and thus cause troublesome and dangerous bowel troubles.

Its basis is Milk Sugar, which never causes acetic fermentation. The gluten flour is partially torrefied and every particle is subjected to the action of the malto-diastase, thus transforming the starch into soluble carbo-hydrates. So that, although by reason of weakening of the natural forces and impairment of the digestive functions, the conversion of starch is so slight that the stomach is hampered and strained, nutrition may be kept up by the use of prepared foods. And when, in the case of infants deprived of mother's nursing, cow's milk disagrees and a wet nurse renders its chances of life precarious, Lactated Food is the sole reliance.

PUBLISHERS' DEPARTMENT.

BOOK NOTICES.

NATURAL LAWS IN THE BUSINESS WORLD. By Henry Wood. Lee & Shepard, 1887.

This is a step in the right direction. It is not a final step nor an ambitious step, for the author modestly introduces his little volume as being merely an essay—yet it is a real step—and in the direction in which the clear light must, if at all, be found, upon the confused and obscure arena of what we know as the "Labor Question."

It is one of the most marked triumphs of science that the field of sociology has at last been fairly brought under the scientific method of investigation. With its imponderable factors, its wage of shifting currents and cross-currents, its delicate and intricate processes, the field of social combinations and forces might seem to present an object irreducible by scientific analysis. So far from this, it is now on all hands conceded that the scientific method alone promises a very satisfactory solution of the practical and puzzling questions of sociology.

The attempt is made in Mr. Wood's little book to apply this scientific method to that department of sociology which embraces the relations between labor and capital.

A survey of the actual facts which the "antagonism" (so called) between labor and capital has elicited—a careful examination of these facts, to determine the law or laws which they disclose—a cautious reasoning upon the basis of such laws, with reference to practical questions now under discussion. This would seem to have been the aim of the author, who thus makes no boast of literary graces, but who writes, simply, sincerely and therefore effectively, like a man speaking straight forward on a business errand.

The natural laws which the author discovers as applying to the labor question, are chiefly these three: First, the natural equality of supply and demand. Second, the natural obligation of labor upon all men. Third, the freedom of personal contracts. These principles he applies in a variety of ways to the questions of labor unions, co-operation, State arbitration, class legislation, etc. As a result he finds that the present agitation in the assumed interest of labor, conducted by such men as Henry George, and the leaders of the labor unions, are, generally speaking, mischievous, hurtful to laborer and capitalist.

The weak point in the book is the absence of a sufficiently wide citation of facts to support this inductive and scientific method of examination to which the author appeals. One would fancy that the author, having read Drummond's "Natural Laws in the Spiritual World," and being caught by the fascination of the title, and struck with the idea of applying the same method to economic problems, has hastened straightway, without waiting to cull special facts, to write the present book, which is therefore open to the charge of dealing a little to much in generalities.

At the same time it would, of course, be unfair to apply to the present *brochure* the tests suited to an exhaustive treatise. We could wish, that with an ampler exhibition of facts, and a more elaborate treatment of them, Mr. Wood would give in a subsequent edition a more thorough statement of his excellent argument, for he is on the right track—and the only track—which can lead to satisfactory results in the elucidation of these questions.

Of the literary form and style of this little volume, nothing need be said. It makes no literary pretension, and deserves no special praise, other than that which, in an era of strained literary effects, is always due to an honest and clear statement of plain truth.

THE MEDICAL REGISTER, of New York, New Jersey, and Connecticut. Wm. T. White, M. D., Editor. G. P. Putnam's Sons, 27 and 29 West 23d street, New York, publishers. Price, $2.50.

The twenty fifth volume arrives with its usual promptness and gives evidence of careful revision. A work of this kind should be encouraged, as it is of importance to the medical profession. There are, besides the registry of physicians, many pages devoted to such subjects as medical colleges and their faculties, trained nurses and their addresses, lists of hospitals, street directory, days of meeting of medical societies, etc., which will readily recommend themselves to the live practitioner as facts that should be at hand.

THERAPEUTIC NOTES.

Carnrick's Food.

The following is from an article on the Feeding of Infants deprived of the Breast Milk, by J. LEWIS SMITH, Clinical Professor of Diseases of Children, Bellevue Hospital Medical College:

No physician should recommend a food as he would not a medicine, without knowing

its composition ; and the composition of most of the recent dietetic preparations, ending with Carnrick's, has been announced. Carnrick's food contains a large percentage of the solid constituents of milk, the casein of which has been partially digested so as to resemble the casein of human milk in its behavior under the digestive ferment. The other ingredient is stated to be wheat flour subjected to prolonged baking, so that its starch is to a considerable extent converted into dextrine. This food has the advantage of easy preparation in the nursery, and easy digestion. Used alone it is sufficiently nutritious for the infant. It will probably supersede some of the older foods of the shops. Those who cannot afford to use it as the sole food, will, according to my observations, find it useful made into a thin gruel, and employed in diluting the cow's milk with which these infants are fed.

Papine.

Mr. Samuel E. Woody, Professor of Chemistry and Public Hygiene and Lecturer on Diseases of Children, Kentucky School of Medicine, at Louisville, on April 8th, said:

Papine was used in a case of acute dysentery of unusual severity, requiring unusually large doses of opium. The effects of Papine were so purely hypnotic and anodyne that a pound was ordered, and no other form of opium was used during the entire illness. Papine is a pharmaceutical triumph.

Atmosphere Purifier.

Under this caption the following excerpt, probably because of its foreign source (credited to the Berlin Medical Association), is heralded by the medical and popular press as an especially useful air purifier for the sick room: Take of

Oil rosemary. .. ..10.0 parts.
Oil lavender..... 2.5 parts.
Oil thyme..... 2.5 parts.
Nitric acid.....30 0 parts.

Shake well before using. Saturate a sponge, and place in convenient position for spontaneous evaporation.

Listerine, prepared by the Lambert Pharmacal Company, St. Louis, which we have before had occasion to recommend, is, in our judgment, far better adapted to the purpose. It consists of the essential ethers and oils of thyme, eucalyptus, baptisia, gaultheria and mentha arvensis, in combination with benzo. boracic acid. The vapor evolved by its use in the sick chamber by means of saturated cloths, sponge or spray, is actively ozonifying and rapidly oxidizing in its effects on organic matter afloat in the sick-chamber, while at the same time it imparts a grateful odor to the atmosphere.—*Sanitarian.*

Bovinine

Contains more than 34 per cent. of soluble albuminoids. Is the only raw food in the world. Keeps in any climate. Does not become putrid like most other meat extracts. Is retained by the most irritable stomach. Creates new and vitalized blood faster than any other preparation. Sustains life for months by injection. Is daily saving life in cases of Phthisis, Typhoid and Relapsing Fever, Diphtheria, Bright's Disease, Neuralgia, Pneumonia, Anemia, Marasmus, Cholera Infantum and all diseases of children. Builds up the system after severe surgical operations. Soothes and alleviates ulcerated and cancerous conditions of the digestive organs. Is the only nutrient that will permanently cure nervous pro-tration and debility. Upon it, puny and feeble infants and children thrive wonderfully. Contains no medication whatever. Put up in 6 and 12 oz. bottles, at 60 cents and $1.00. 12 oz. contains the strength of ten pounds of meat.

Crystalline Phosphate.

Provident Chemical Works, St. Louis, Mo. Gentlemen: Will you kindly send me another sample of your Crystalline Phosphate. The one you sent me I have used myself with so much benefit that I am desirous of a patient of mine trying it. He has used several preparations of the kind, without any good results, and is doubtful as to its efficacy ; but I feel sure this will help him. Where can I procure it in Pittsburgh ?

Very respectfully, J. S. Walters, M. D.

Painless Rectal Treatment.

Read the advertisement of Dr. W. E. Ryan of this issue. If you are interested in curing piles or any disease of the rectum send to him for information. Mention Medical Digest.

Peacock's Bromides.

Drs. Robb & Hall, Woodburn, Ky.—We find Peacock's Bromides to be one of the best remedies we have ever used in nervous headaches, and in cases where a nerve sedative is indicated it acts admirably.

Erratum.

It is the well known house of Eli Lilly & Co., Indianapolis, Ind., who have issued a Hand-book of Pharmacy and Therapeutics, not Edward Lilly & Co., as announced in our last number. Send for a copy.

EDITORIAL.

Bergeon's Treatment of Consumption.

The following interesting letter from Dr. C. D. MILLER, of Pottsville, Pa., we have ventured to publish in this department, and have added our views after due and careful investigation and experimentation with this method of treatment :—

"In the May number of the DIGEST I find an article written at length upon the merits of the Bergeon treatment of chronic disease of the lungs by medicated enemata, citing a number of cases and some instances where temporary amelioration of the disease was produced by this mode of medication. In the *Medical Bulletin* of the same month I find the following as an editorial :

"'When we reflect that consumption annually numbers more victims than all the zymotic affections combined, and that more than one-twelfth of the deaths which occur every year are due to that dread disease, we do not wonder at the credulous enthusiasm with which the hasty reports of the value of the Bergeon treatment were received by countless unhappy patients and their sympathizing friends.

"'We are amazed, however, that thinking physicians should allow themselves to be deceived into thinking that a degenerative process, seated deeply in the pulmonary tissues, could be arrested by pumping a few volumes of carbonic acid gas and sulphuretted hydrogen into the rectum. Of course, in cases complicated by intestinal ulceration, the anæsthetic effect of the former gas will lessen the pain, and consequently inspire the sufferer with new hope for the time being. In all other cases the Bergeon treatment is not only valueless, but positively injurious, as it arouses a hope which can never be realized, and which in a few weeks is rudely dispelled, leaving the patient dispirited and less able to withstand the ravages of the disease than at first.'"

"This coincidence of contradictory articles upon the same subject appearing in two journals that I receive regularly has caused me to consider the subject in all its various phases and to determine, if possible, which article of the two is correct, as both, when considered by a thinking and unprejudiced mind, are very plausible ; when compared, however, we at once see that they conflict to such a degree that whichever we receive as truth, necessarily makes the other ridiculous.

"Anxious to find out the merits of this plan of treatment, I secured one of J. W. Qullin's apparatuses and applied it to a case of asthma, taking all precautions mentioned in the article referred to, and in the pamphlet accompanying the machine. The result was a signal failure. From the beginning of the injection the patient complained of pain in the intestines, and as the injection was suspended the pain disappeared, only to return again when we resumed injection. I then discontinued the injection as the articles written upon the subject emphatically say that there is no pain, providing no air be present.

"Considering the subject since, I am lead to reason in this way :

"1. If the remedy has been so long known as represented by Dr. J. Henry Bennet, and has met with the results claimed by him, why has it not been received and employed more generally by the profession ?

"There are two of these machines in this town ; one is held as an extra contingent to an already established *humbug;* the other, in the hands of one of the profession is unused, the owner feeling assured that it is without merit.

"2. This is sulphuretted hydrogen gas and carbonic acid gas injected into the intestines. Now, in the natural order of digestion the system evolves these gases and expels them at intervals, when its expulsion is known as flatulence, a very common term. Flatulence whenever present in any marked degree is always accompanied by a sense of uneasiness and frequently pain before the gas is set free ; this is an experience none of us have failed to notice, and as like conditions under like influences produce like results, I have concluded that there must be some pain accompanying the injection of these gases into the intestines.

"3. The article appearing as it does without the notice of the heads of the profession, appears as an advertisement for the sale of the instruments. The author does not attempt to explain scientifically, the therapeutic effect or physiological action of the remedy, but consoles himself with the statement 'that he does not propose his plan as a microbicide treatment, but merely as one that succeeds.' And says, 'the treatment will have to be put to a test.' If, as the author of the article says in starting out, 'Dr. Bergeon commenced his inquiries and experiments some years ago,' be true, I think it is rather late to come forward, at this date, with the declaration that 'this treatment will have to be put to the test of experiment.' I think the doctor has had time enough to bring forward living witnesses of the efficacy of his plan of treatment."

[Our correspondent's doubts are shared by members of the profession, ourselves among the number.

Like many other novel and startling means of combatting the ravages of hitherto incurable diseases, Dr Bergeon's method has been seized upon by the enthusiastic, and its apparent successes vaunted before sufficient time had elapsed to determine the question whether the improvement which followed its use in some cases was in reality due to its employment, and whether that improvement, real or imaginary, would remain as an enduring evidence of its utility.

In this, as in many other phases of human experience, the wish is often father to the thought, particularly in the minds of the patients themselves, who are ever ready to follow any therapeutical *ignis fatuus* that may present itself to their anxious gaze.

The names of the gentlemen who have endorsed this method are sufficient to disarm all doubt as to the honesty of their statements, and it should, furthermore, be remembered that, in this country, those who have reported upon its use have mostly been very guarded in their expressions of opinion as to the final verdict which should be pronounced. We have reason to believe that those who have used it from the first are now losing faith. In Bellevue hospital, for instance, where it has had a very fair trial, its use, we are told, has been abandoned, and personal communications from physicians of eminence are to the effect that the improvement at first noticed has, in many instances, proved to be but temporary.

The rationale of the treatment has been fully explained by Dr. V. Morel, of Lyons, in a pamphlet issued last year and entitled "A New Treatment of Diseases of the Respiratory Tract and Blood-poisoning."

We quote the following concise statement of the argument from an article by

one of our editorial staff in the *Southern California Practitioner*, for June, 1887:

"The theory is based upon some observations published by Claude Bernard, to the effect that certain poisonous substances, when introduced into the body in such a manner as not to be directly absorbed into the arterial system, lost much of the intensity of their toxic effects. He had also experimented in the introduction of various gases into the intestinal canal, and had found that carbonic acid, when so introduced, gave rise to little or no irritation of the mucous membrane.

"It was thought that, if some antiseptic substance, strong enough to kill or impair the activity of the tubercle and other bacilli which exist in the lungs of consumptives, should be used in this way, a sufficient amount might be employed to accomplish the primary object without fatally injuring the patient. The most valuable of these was sulphuretted hydrogen. When a quantity of this gas is injected into the intestines of an animal, it is absorbed by the radicles of the portal vein, passes from this through the inferior vena cava, into the right heart, thence into the pulmonary artery, and is thrown off from the respiratory surface of the lungs. So that if a large amount is introduced, it is lost before it gets into the arterial system, and fails to exert its poisonous influence upon the brain and spinal cord."

Our correspondent will see from this that absence of pain during the injection is expected to result from the anæsthetic effect of the carbonic acid. In our own practice we have not noticed any pain unless the gas was injected too rapidly, when the simple distention would give rise to uncomfortable, flatulent sensations.

The efficacy of the sulphuretted hydrogen as a microbicide, when used in this way, has been questioned, and experiments have been made which seem to show that it is without appreciable effect on the bacilli.

It may be well, however, to reserve our final judgment until a later date, when more extended clinical experience may give the method of Dr. Bergeon some therapeutical standing, though denying to it the exalted position that has been claimed for it by those who officiated at its birth.]

THERAPEUTIC NOTES.

Sugar of Milk.

Sugar of milk is the most important constituent of mother's milk. It is used as the basis of the celebrated Lactated Food, and to its properties of overcoming irritation of the bowels, restoring digestion, and correcting acidity of the stomach, is largely due the great success which this food has achieved. Combined with it, are the best properties of wheat, barley, and oats, forming a food which is unexcelled as a diet for infants or invalids. Sold by all druggists in three sizes: 25c., 50c., and $1. It is recommended by physicians, nurses, and mothers. Send for the book on "Nutrition of Infants and Invalids," giving much important information. WELLS & RICHARDSON CO., Burlington, Vt.

Succus Alterans in Rheumatism and Syphilis.

We are reliably informed that the preparation Succus Alterans (McDade) is becoming a very popular remedy with the profession, and being very extensively prescribed in general

practice as an alterative tonic, aside from its use in syphilitic diseases. The good results from its use in treatment of rheumatism, of chronic character especially, is worthy of consideration. The remedy is certainly growing in favor, and as no great claims have ever been made for it, but simply placed upon its own merit, we think it could possess no higher recommendation.—*Indiana Medical Journal.*

Bromidia.

DR. W. H. MAY, of New York City:—I have had very successful results in the administration of Bromidia in cases having their origin in disorders of the nervous system, such as cholera infantum, paralysis, insomnia, etc. *But I find it to be of special value in treatment of delirium tremens, and the results of debauch;* it being retained upon the stomach and speedily controlling the most dangerous symptoms, and producing the desired calmness and sleep necessary, when morphia and other soporifics have failed to do so, and thus rendering the disorder amenable to further treatment. Have also prescribed it successfully in the terrible state of nervous exhaustion due to opium habitués endeavoring to relinquish the habit. And, finally, as result of experience, I pronounce it the "Hypnotic *par excellence.*"

Crystalline Phosphate.

G. H. QUAY, M. D., Cleveland, O.:—Gentlemen: I have used your preparation of inorganic substances called "Crystalline Phosphate," am pleased with its action. Where indicated I think it should be prescribed instead of iron tonics, so called, which eventually tend to debilitate the system.

Nervous Prostration, Dysmenorrhea.

N. A. SACKETT, M. D., Ewing, Holt Co., Neb:—Celerina I have tested in two cases of nervous prostration. One case was a man of about 35 years of age, who has been subject to attacks for a number of years as often as every two weeks. I prescribed an ounce in two ounces of port wine, to take a teaspoonful four times a day. He has not had an attack since, although two months have elapsed. The other was a lady of about the same age, who has had similar attacks for the last five years. She has had no recurrence of the trouble since, and moreover she has passed two monthly periods without the usual dysmenorrhea, with which she is usually afflicted at that period. I shall continue to prescribe it in cases in which it is indicated, and will report more fully in the future.

American Pocket Battery.

W. O'DONOUGHUE, M. D., Albion, Mich.:—The Electro Medical Battery Co., Kalamazoo, Mich.—I can cheerfully recommend your Improved American Pocket Battery, as being the most compact and convenient Battery with which I am acquainted. Its strength of current is a constant surprise, and its cleanliness mitigates one of the annoyances usually attending the use of a Battery.

A Perfect Liquid Cathartic.

GEO. W. HOAGLAND, M. D., Columbus, Ohio:—I can truly say that I have frequently used "Elixir Purgans (Lilly)" with great satisfaction in cases of obstinate constipation, and can cheerfully recommend the use of this preparation to other practitioners of medicine.

Please Write Plainly.

Through the recent offer made by us, in your advertising pages, to send our complimentary samples of Platt's Chlorides, to any physician still unacquainted with it, we have received many hundreds of requests, which we have complied with, with pleasure.

But there are a few that will be disappointed, by reason of their own carelessness or thoughtlessness, in writing; it having been either impossible to decipher the name, or the P O. address, or the latter has not been fully given. For instance, one physician gives his P. O. address, as simply Harper's Ferry, not naming the State! There being an Harper's Ferry in Iowa, same in Kentucky, and another in West Virginia, it was impossible to tell where to send our sample, as in this instance, the physician's name was not in any of our directories, and the post-mark was entirely obliterated.

We will continue our offers to send samples (expressage prepaid by ourselves) for a few weeks yet, and would kindly ask those requesting same to enclose their card, or to write on a letter-head, giving the name and address in print. Most respectfully,

HENRY B. PLATT,
36 Platt Street, New York.

BOOK REVIEWS.

A PRACTICAL TREATISE ON THE DISEASES OF THE HAIR AND SCALP. By George Thomas Jackson, M. D., Instructor in Dermatology in the New York Polyclinic; Assistant Visiting Physician to the New York Skin and Cancer Hospital; Member of the New York Dermatological Society; etc. In one octave volume, 356 pages. Illustrated by special drawings and photographs from life. Price, $2.75. E. B. Treat, publisher, 771 Broadway, New York.

The enterprise of an undertaking of this kind and the immediate pecuniary advantage which necessarily accrues to the medical man when a publishing house of the character established by E. B. Treat, undertakes to publish monthly under the title of "Medical Classics," many new treatises for a moderate compensation, will, we are sure, be appreciated and supported by our readers.

We can do no better in discussing the contents of the first volume of the series under consideration, than quote from the author's own statement:

"This work discusses the various phases pertaining to the care of Scalp and Hair, and to the treatment of its diseases. The parasitic, as well as the non-parasitic diseases, which affect it, and those of the Scalp in which the Hair is implicated, are all carefully explained. The Hygiene of the hair, even to minute points, is fully described and directions given for its care in every particular. The best plans of treatment by the most eminent men of this country and Europe for the various diseases of the Hair and Scalp are also fully set forth.

With the object in view of rendering this volume of still greater practical value, its contents are illustrated by numerous and specially selected wood-cuts which demonstrate to the eye what the text places before the understanding.

The Dermatological *specialist* will also find in this volume a most carefully arranged and voluminous bibliography collected from over six hundred journal articles, besides special and general treatises.

To the general medical practitioner who finds it so difficult to learn what is the proper thing to do for a 'hair case,' this book will prove invaluable, as he will find scattered through it many prescriptions that cannot fail of being useful to him. The author has made the matters of diagnosis and treatment specially prominent, carefully pointing out the differences between the various diseases of the hair, the special and appropriate remedy needed for each, and the best means for their prevention."

After carefully perusing this volume we are convinced of the truthfulness of the foregoing remarks and can unqualifiedly commend this unique volume on a subject of equal interest to the busy practitioner and specialist.

INSANITY, ITS CLASSIFICATION, DIAGNOSIS AND TREATMENT; a Manual for Students and Practitioners of Medicine. By E. C. Spitzka, M. D., Professor of Medical Jurisprudence and of the Anatomy and Physiology of the Nervous System, at the New York Post-Graduate School of Medicine, President of the New York Neurological Society, etc. In one large octavo volume, 424 pages. Illustrated. $2.75. E. B. Treat, publisher, 771 Broadway, New York.

The reputation of Dr. Spitzka in this especial branch has long since been recognized. This second edition of his work bears marks of careful revision and much new matter has been added. The same clear, perspicuous style has been adhered to as in his previous edition, and facts have been presented with little or no speculation. All sides of the subject have been discussed, and so thorough has been the author's work that many of our first medical institutions have adopted this as their standard text book on the subject. This fact alone is a sufficient guarantee of its value, and from our personal standpoint, we, after a careful perusal, can add our testimony to its intrinsic worth, believing that there is no work in English, at least, which covers the ground so thoroughly, concisely and satisfactorily. We congratulate the publisher on having selected this volume as the second in the series of the "Medical Classics."

THE PHYSICIAN'S VISITING LIST; P. Blakiston, Son & Co., Publishers, 1012 Walnut Street. Philadelphia, Pa.

No better idea of this visiting list, which we have always used, can be obtained than by the following summary of its contents, contained in the smallest possible space:

A Calendar for 1888 and 1889.
Table of signs to be used in keeping accounts.
Marshall Hall's Ready Method in Asphyxia.
Poisons and Antidotes.
The Metric or French Decimal System of Weights and Measures.
Dose Table, revised and re-written for 1888, by Hobart Amory Hare, M. D., Demonstrator of Therapeutics, University of Pennsylvania.
List of New Remedies for 1888, by same author.
Aids to Diagnosis and Treatment of Diseases of the Eye, Dr. L. Webster Fox, Clinical Assistant Eye Department, Jefferson Medical College Hospital, and G. M. Gould.
Diagram Showing Eruption of Milk Teeth, Dr. Louis Starr, Prof. of Dis. of Children, University Hospital Philadelphia.
Posological Table, Meadows.
Disinfectants and Disinfecting.
Examination of Urine. Dr. J. Daland, *based upon Tyson's* "Practical Examination of Urine." (5th Ed.)
Incompatibility. Prof. S. O. L. Potter. Author of "A Hand-book of Materia Medica and Therapeutics."
A New Complete Table for Calculating the Period of Utero-Gestation.
Sylvester's Method for Artificial Respiration. Illustrated.
Diagram of the Chest.

As we have said heretofore, we know of no visiting list which for compactness, durability and general usefulness, surpasses this one.

WHAT TO DO IN CASES OF POISONING, by William Murrell, M. D., F. R. C. P. First American, from the Fifth English, Edition. Edited by Frank Woodbury, M. D., of Philadelphia. Published by The Medical Register Company, Philadelphia, Pa.

This volume contains almost everything on the subject that could possibly be of any use to the practitioner, omitting the history and antidote of no drug which could be used for suicidal purposes or taken by mistake. It should be in the library of every busy practitioner, and will undoubtedly be most appreciated at a moment least expected.

ANNALS OF GYNÆCOLOGY, a Monthly Review of Gynæcology, Obstetrics, and Abdominal Surgery, edited by E. W. Cushing, M. D., Boston, with the collaboration of Prof. T. G. Thomas, New York; Prof. W. G. Wylie, New York; Prof W. K. Polk, New York; Prof. De Laskie Miller, Chicago; Dr. Andrew F. Currier, New York; Lawson Tait, M. D., England.

Should succeeding volumes continue the high standard adopted in the first issue, only one thing can follow and that is an extensive subscription list, a thing of great importance to a worthy medical publication like this.

MEDICAL NOTES.

The Pharmaceutical Era, published by D. O. Haynes & Co., Box 583, Detroit, Mich., desires us to call the attention of our readers to the following proposition of importance:

The Mutual Relations of Physician and Pharmacist.—That there should exist between those who prescribe and those who dispense medicines relations of mutual confidence and esteem, that there should indeed be a perfect understanding on the part of each what is due in professional comity to the other, every one interested must at once recognize. The subject is one of great and growing importance, and so deeply are we impressed with the necessity for its full discussion just at this time in the interests of both the professions concerned, that we have decided to offer a prize of fifty dollars in gold for the best essay on the subject. The essay should endeavor to show how the ideal harmonious relations between physicians and pharmacists, both as individuals and as represented in their respective organizations, may be best realized, and all competitors must be governed by the following conditions.

1. Any one interested in the subject may compete.

2. The essay must not exceed 2,000 words in length and must reach us previous to January 1st, 1888.

3. The MSS. must be free from the author's name, address, or other marks of identification, and we recommend typewriter copy wherever practicable

4. The author's name and address must be enclosed with manuscript on separate paper.

5. All the essays submitted in competition for the prize are to be the property of the *Pharmaceutical Era*, and to be published or not at the discretion of the editor, but names of authors will be suppressed if requested.

6. A committee consisting of five representative men chosen from the medical and pharmaceutical professions, to whom the essays shall be submitted anonymously, shall award the prize, and the names of the committee will be announced with their decision.

Further explanatory remarks will be published in our November number.

DR. FRANCIS J. QUINLAN, of this city has, been appointed Instructor of the Department of Diseases of Throat and Nose in the New York Polyclinic. Dr. Quinlan has been associated with the Polyclinic for nearly three years, he likewise holds positions in the New York Eye Infirmary, Northern Dispensary, and is the assistant of Prof. Lefferts, at the College of Physicians and Surgeons of this city.

NEW PUBLICATIONS.

The following works will be issued during December by the New York publishers, Leonard & Co., 141 Broadway:

DISEASES OF WOMEN; a worked based upon the practical experience and teachings of the following eminent Gynæcologists: Drs. Thomas, Munde, Hunter, Lusk, McLane, Skene, Garrigues, Barker, Emmet, &c., 436 pages, Cloth, $1.50.

DISEASES OF INFANCY AND CHILDHOOD; with over 400 Formulæ and Prescriptions, by Drs. Jacobi, Hammond, Flint, Loomis, Janeway, Bulkley, Agnew, &c., 300 pages, Cloth, $1.00.

DISEASES OF HEART AND LUNGS; with over 350 Formulæ and Prescriptions, by Drs. Draper, Delafield, Leaming, J. Lewis Smith, Loomis, Clark, Janeway, &c., 204 pages, Cloth, $1.25.

Illustrated London N ew

For the issue of November 12th, The Illustrated London News (American Edition) furnish their many readers, in connection with a wide variety of reading, the following timely illustrations: A very spirited picture of the unemployed in London, entitled, "The Police and the Mob; three pictures upon the State of Ireland; one of How Some of the London Poor Spent the Night, and another of the

Poor Helping the Poor, as well as the meeting of the unemployed in London. There are also sketches from the Burlesque of "The Sultan of Mocha," at the Strand Theatre, and one page devoted to the Sultan of Morocco, while the opposite page presents G. L. Seymour's drawing of "A Favorite Slave." Besides these attractions there is a double page picture of Buffalo Hunting in North America. The price remains as usual at ten cents for the complete number. Office of publication, Potter Building, New York.

THERAPEUTIC NOTES.

Dr. C. H. Fitch's Medical Scales.

It is becoming much the fashion at the present day for physicians to dispense in their office a number of simple remedies. The use of powders for this purpose requires scales, which, if accurate, are usually quite expensive. Dr. C. H. Fitch, of Richmond, Va., has invented a pair of scales which fit into a box the size of that used to contain a hypodermic syringe. With care, this instrument will measure with reasonable accuracy from one grain to twenty. Care should be taken to have the substance to be measured directly in the centre of the pan. We think this instrument, which is sold for the reasonable sum of one dollar, will prove useful, particularly for the country practitioner.

Alpha Syringe.

We have been using for some time past in our practice the "Alpha Syringe," manufactured by Parker, Stearns & Sutton, of 79 Centre Street, New York, and can testify to its durability, and in many respects superiority over all others. Among its advantages are the continuous flow and rubber trimmings throughout, thereby rendering its use noiseless. The same company also manufacture the "Alpha Fountain Syringe," which contains a valve at the top which prevents entirely the escape of any fluid when once filled, no matter in what position it may be placed, an advantage readily appreciated.

Charity Hospital Training School.

We are glad to notice the announcement of the Charity Hospital Training School for male nurses, of New York. Under the able management of those announced, it cannot help being of infinite benefit to physicians in their efforts to conserve the best interests of their patients.

Physicians' Phætons.

We would particularly call attention to the advertisement of Linn Bros., carriage manufacturers, in another portion of this journal. This popular manufactory has been in existence many years and is now making a specialty of physicians' phaetons. We have for some years past used exclusively carriages manfactured by this firm, and can give them our unqualified endorsement, both in regard to quality of workmanship, material used and durability.

Hoff's Malt Extract, Tarrant's,

is the prescription used by physicians when a reliable nutritive tonic is required. The word "Tarrant's" is necessary in order to prevent substitution of some worthless article under a similar name on which apothecaries can make much more money. The high reputation which Messrs. Tarrant & Co. have enjoyed for more than forty years causes full value to be given to their statement, that their "Johann Hoff's Malt Extract" is what its name implies, and is the genuine imported article so largely used in European practice and not the product of an American brewery with merely a German label.

A Reliable Liquid Pepsin.

Have used "Lilly's Liquid Pepsin" for the last ten years with remarkable success and do highly recommend it to the profession.

Thompkins E. Taggart, M.D., Cincinnati.

The Genuine Succus Alterans.

The genuine preparation, "Succus Alterans," gives me the greatest satisfaction in the treatment of syphilis and rheumatism. I have in many such cases given the "Succus" alone, and I am convinced that it serves me always as the best alterant in treatment of blood diseases. Yours respectfully,

Frederick Oberd, M.D., Hot Springs, Ark.

To Eli Lilly & Co.

Peptogenic Milk Powder.

The enterprising house of Fairchild Bros. & Foster, 82 Fulton Street, New York, wish all physicians to send for pamphlet on "Peptogenic Milk Powder," and samples of pepsin, etc. Mention the Medical Digest and they will be sent free of charge.

Uterine Tonic.

Aletris Cordial (Rio) is, without doubt, an excellent Uterine Tonic. I am more than pleased with the satisfactory results produced by its use in cases of uterine trouble which have come under my observation. I regard it as an invaluable medicine.

H. T. Cox, M. D., Mobile, Ala.

Colden's Liquid Beef Tonic.

* * Having become familiar with "Colden's Liquid Beef Tonic," I take pleasure in recommending it as an excellent preparation, combining as it does food and tonic in a re-

markable way, producing good blood, health and strength.

DR. S. W. HUNTER, Baltimore, Md.

Hoarseness.

Physicians are rarely disappointed in the use of "Listerine" for singers and public speakers. The following is of the highest value: R. Nitric acid (C. P.), 4 drops; Listerine, 1 ounce; water, 3 ounces. M. Sig.—Use frequently by spray or gargle.

Abdominal Supporter.

Attention is called to Flavell & Brother's new advertisement of an Abdominal Supporter with Uterine Cup appended. They have reduced the price for this Abdominal Supporter which is sold either with or without the cup. Send for illustrated catalogue of their goods and mention the MEDICAL DIGEST.

A Man of Sense.

An intelligent men, while in a strange town, needed medical advice. He applied not to the landlord of the hotel nor to the local druggist, but went straight to the postmaster. "Tell me," he said, "which of the doctors of the city take the largest number of journals?" The postmaster told him, and the gentleman replied, "A man who takes the journals of his profession is well read, and up with the times, and that is the doctor I want to treat me and my family."

Bromidia.

Richmond, Va., Nov. 9th, 1886.

MESSRS. BATTLE & CO., St. Louis, Mo.

GENTLEMEN:—I have before me two samples of "Bromidia" purchased from different drug stores in this city. They are, apparently, so different in appearance, taste and therapeutic effects, that I want you to write me which one is made by you and which is spurious.

Sample No. 1 is reddish brown in color, slightly opaque, and not very disagreeable to the taste. The dose of one or two drams has a decided hypnotic effect.

Sample No. 2 is of a light greenish brown color, perfectly transparent and intensely disagreeable to the taste, being bitter and acrid, and bearing evidence of containing no coloring matter whatever. The dose of one or two drams does not have as decided and prompt an effect as in the case of No. 1.

I write you for information on the subject, as I frequently prescribe "Bromidia" and am often disappointed in the effect. Both the samples of which I write were purchased from druggists who are considered reliable and first-class in every way, but there is certainly something wrong somewhere, and I must find out where it is or quit writing for "Bromidia" altogether, for unless I know where my prescriptions will be filled, I am by no means certain of the effects upon my patients.

Trusting that you will favor me with as early and explicit a reply as possible, I remain,

Very respectfully yours,

CHAS. H. CHALKLEY, M. D.

Richmond, Va., Jan. 17th, 1887.

MESSRS. BATTLE & CO., St. Louis, Mo.

GENTLEMEN:—Your favor of the 13th is just to hand. I owe you many apologies for not answering yours of November 16th, but was under the impression till now that I had done so. The bottle of "Bromidia" came safely to hand, and satisfied me beyond a doubt that the article (sample No. 2) I had been getting in my prescriptions was spurious and totally unlike the genuine, both in physical appearance and in therapeutical effects. I send you sample by express, and hope you will pardon my unintentional neglect.

Yours very truly,

CHAS. H. CHALKLEY, M. D.

Bovinine.

I have been prescribing "Bovinine" in my practice for some time, and am highly satisfied with the results. In one case of typhoid fever, where every other nourishment was rejected, the "Bovinine" was retained, and, I feel confident, saved my patient.

JOHN MILTON DUFF, M. D.,
Prof. Obstetrics in Western Penn. College.

Gentlemen:—We have used your "Bovinine" extensively in this institution with very satisfactory results. Its beneficial influence has been especially marked in cases of typhoid fever. "DETROIT SANITARIUM."

F. W. MANN, Resident Physician.

Coca and Cocaine.

Mariani & Co., 19 East 16th Street, New York, will send any one who mentions the MEDICAL DIGEST a complete work on Coca and Cocaine.

Obstinate Constipation.

I have a patient, a man who has been constipated four years, has called upon all the physicians in the place, neither have benefitted him, never having had an action upon the bowels oftener than six to eight days. He is now taking the Acid Mannate in small doses daily, keeping his bowels free. I have a lady patient who is suffering with a uterine trouble, and has periodical nervous sick headache (I think solely dependent upon the uterine troubles), she is also constipated. I have her upon the Acid Mannate; she, as well as myself, is pleased with its effect; her headaches are not so frequent or severe.

E. A. SCOTT, M. D., Columbus, Kan.

BOOK NOTICES.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS, by Robert Bartholow, M. A., M. D., L. L. D., Professor of Materia Medica, General Therapeutics and Hygiene, in the Jefferson Medical College of Philadelphia. Sixth edition, revised and enlarged. D. Appleton & Co., New York City, publishers. Price $5.00.

On receipt of the sixth edition of this work we were at a loss to know why in so short a time so many editions should be required of a text book, which in its *first edition* (of which we were in possession) seemed to be superior to all others of its class. We think we speak the truth when we say that probably no other Materia Medica is so universally used and recommended by medical colleges as the one under consideration.

An examination of this last edition only shows the care, painstaking and desire of the author to keep his work well up with the rapid progress which is being made in the field of Materia Medica and Therapeutics. One hundred pages have been added to the last edition, besides a complete *Clinical Index*, giving a full list of diseases and the drugs used in the treatment of the same, with a short note after each one of its especial indication and action; this, together with a separate index of remedies makes a valuable addition for ready reference, a qualification which has been already recognized by those familiar with its pages. This edition, like all the others, is typographically perfect, and has been carefully edited, two very important matters especially in a work of this kind, where a slight error might lead to much mischief. Finally, we are ready to acknowledge, that of all treatises on this subject, with which we are familiar, we have long since given the preference to that of Prof. Bartholow, and we feel sure that we only bespeak the thoughts of thousands of practitioners in this and other countries.

LESSONS IN GYNÆCOLOGY. By Wm. Goodell, A. M., M. D., Prof. of Clinical Gynæcology in the University of Pennsylvania, etc. Third edition, revised and enlarged, with one hundred and twelve illustrations. D. G. Brinton, 115 South Sixteenth st., Philadelphia, Pa., Publisher.

The author, in this work of 579 pages, disclaims any attempt at a treatise, but states that it is the outcome of clinical and of didactic lectures which, in this book he classifies under the title of *Lessons*.

As a clinical lecturer and teacher, Prof. Goodell is known the world over, and one of the striking characteristics of his work, as of the man himself, is his straight-forward go-aheaditiveness if you will allow the expression; this will be observed from lesson one on "Gynæcological instruments," to lesson thirty-nine, on "The sexual relation as cause of uterine disorders." That the teachings of this work will not accord with those of other distinguished gynæcologists, goes without the saying, for in a branch of medicine which is as yet in its infancy, many theories will be advanced which time and investigation will either wholly disprove or modify. Such we believe, will be the case in regard to *Extreme Antisepsis*, so markedly advocated by Prof. Goodell in this edition.

As a whole, this work is worthy of so great a teacher, and we doubt not, as time advances, should the author become convinced of an error of commission or omission, no one will be more ready to correct the same than the one most responsible for them. The book is well printed, gives evidence of careful revision and is written in a plain, concise and clear style, dealing as nearly as possible with clinical facts as deduced from the life of a keen observer and brilliant operator. This work, will be a valuable addition to every physician's library.

A MANUAL OF THE PHYSICAL DIAGNOSIS OF THORACIC DISEASES. By E. Darwin Hudson, Jr., A. M., M. D., Professor of General Medicine and Diseases of the Chest, in the New York Polyclinic, Physician to Bellevue Hospital, etc. William Wood & Co., Publishers, 56 and 58 Lafayette Place. New York City. Price, $2.00.

Although the author of this little volume sickened and died shortly after the manuscript had been placed in the printer's hands, still we are sure that all who have had or will have the pleasure of reviewing its pages, which have been carefully edited by his friend Dr. Lawrence Johnson, will thank the Allwise that Dr. Hudson was spared long enough to complete so valuable a manuscript.

Of all treatises on this subject, we have seen none which commends itself so fully to our idea of what a work on physical diagnosis should contain. Besides the reading matter, there are numerous cuts giving in a glance, the location of the organs in health, and their

changed position in disease. The author has evidently been a careful clinical observer and teacher, and thus he has been enabled to combine the requisites of a teacher and student, and how well he has accomplished his purpose can only be ascertained by a careful perusal of a work which to us has been invaluable.

HANDBOOK OF TREATMENT. Arranged as an alphabetical index of diseases, to facilitate reference, and containing nearly one thousand formulæ. By William Aitken. M. D. (Edinburgh), F. R. S., Professor of Pathology in the Army Medical School; Examiner in Medicine for the Military Medical Services of the Queen; Fellow of the Sanitary Institute of Great Britain; Corresponding Member of the Royal Imperial Society of Physicians of Vienna; and of the Society of Medicine and Natural History of Dresden, etc.; edited with notes and additions. By A. D. Rockwell, A.M., M D., late Electro-Therapeutist to the New York State Woman's Hospital. In one large octavo vol., 444 pages, handsomely bound. Price, $2.75. E. B. Treat, Publisher, 771 Broadway, New York.

An epitome of Dr. Aitken's work in "The Science and Practice of Medicine," will be readily recognized by our readers as something valuable to be in possession of. This volume contains an alphabetically arranged list of diseases and their treatment, and has consequently been arranged for immediate reference where the practitioner's time is limited, and facts must be obtained at once. No additional commendation of ours will be necessary to guarantee its presence on the desk of every busy, conscientious physician.

HOW TO USE THE FORCEPS, with an Introductory Account of the Female Pelvis and of the Mechanism of Delivery, by Henry G. Landis, A. M., M. D., Professor of Obstetrics and Diseases of Women and Children in the Starling Medical College. E. B. Treat, publisher, 771 Broadway, New York City.

This little volume by Professor Landis needs no introduction by us. We believe every student and practitioner who has made any study of obstetrics is in possession of this handy book. Though small in size, is profusely illustrated and contains much that will prove a blessing to the obstetrician when solving those knotty questions which so often confront him in the performance of surgical midwifery. We certainly trust that none of our readers has failed to become conversant with the matter in this valuable work.

SIX HUNDRED MEDICAL DON'TS. By Ferd. C. Valentine, M. D., Ex-Surgeon-General Army of Honduras, member of the Medical Society of the County of New York, of the Medico-Legal Society, &c., &c. G. W. Dillingham, publisher, New York City.

Although the title of this volume would lead one to suppose that it was a combination of peculiar ideas, peculiarly expressed to conserve the peculiarity of some one person, still a careful perusal of its contents will more than convince the most doubtful that its presence is timely, and that it is replete with valuable suggestions, though expressed negatively. We believe it should be in the hands of every one, whether lay or professional.

THE ASSOCIATION OF AMERICAN PHYSICIANS. We have recently received a volume containing the proceedings of this association, held at Washington, D. C., June 2d and 3d, 1887. This book contains many valuable papers read at this meeting, some of which have appeared in the leading medical journals of this country. The association will accept our thanks for the same.

THE MEDICAL WORLD, with its characteristic enterprise will soon present to the profession its new Visiting List, so arranged that a daily record of practice and accounts, without the use of signs, and hence no need of transferring, may be kept. Accompanying this will be issued a ledger of Monthly Balances, the object in view is to "relieve physicians from carrying large heavy lists, and the trouble of transferring items to a ledger, and to make his daily accounts legal by being entered in words instead of signs." Regular price, $1.50, for Visiting List. This Visiting List seems plausible. We shall report further on our success in its use. For copies, address "The Medical World," 1520 Chestnut street, Philadelphia, Pa.

NATURAL LAW IN THE BUSINESS WORLD. By Henry Ward. Price 30 cents in paper cover. Lee & Shepard, publishers, Boston, Mass. Charles T. Dillingham, New York City.

We gave an extensive notice of this book some time since, and its demand has necessitated a cheaper edition, which the publishers have kindly met. We commend its perusal to all who are interested in a concise and instructive treatise on the relations of capital and labor.

PHILLIPS' PALATABLE COD LIVER OIL EMULSION

Is Peptonized or partially Digested by means of Pancreatine. Owing to the minute division of the Oil, it is perfectly miscible in Milk, Water, etc. Send for illustrated circular.

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THE AMERICAN MEDICAL DIGEST

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EDITED BY

JOHN C. LESTER, A.M., M.D.

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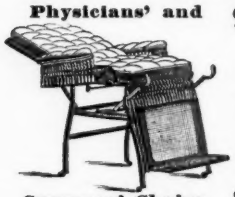

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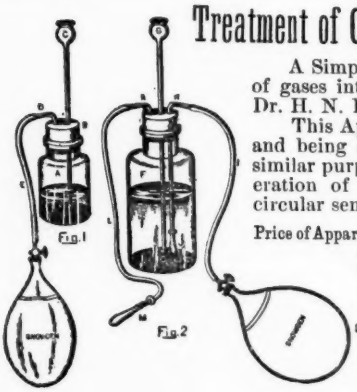

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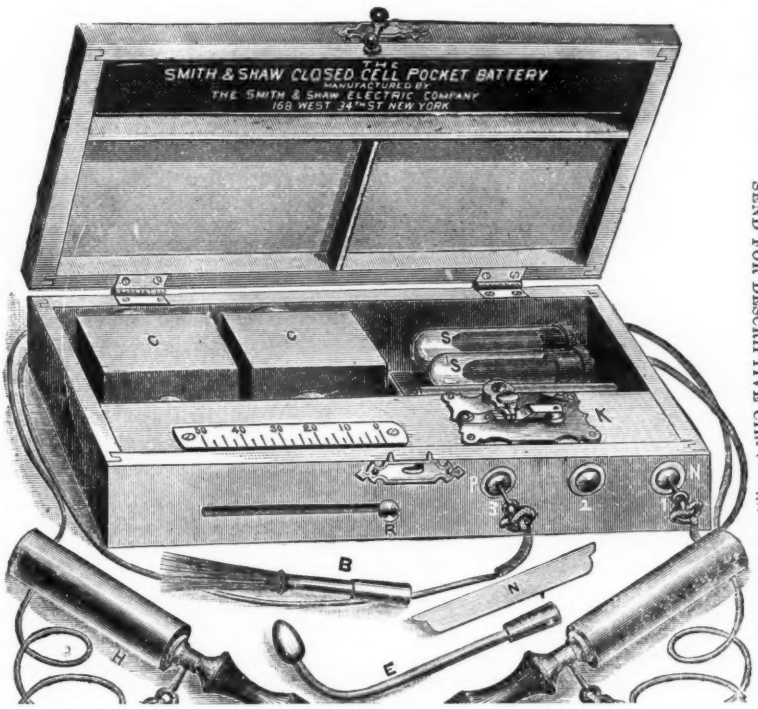

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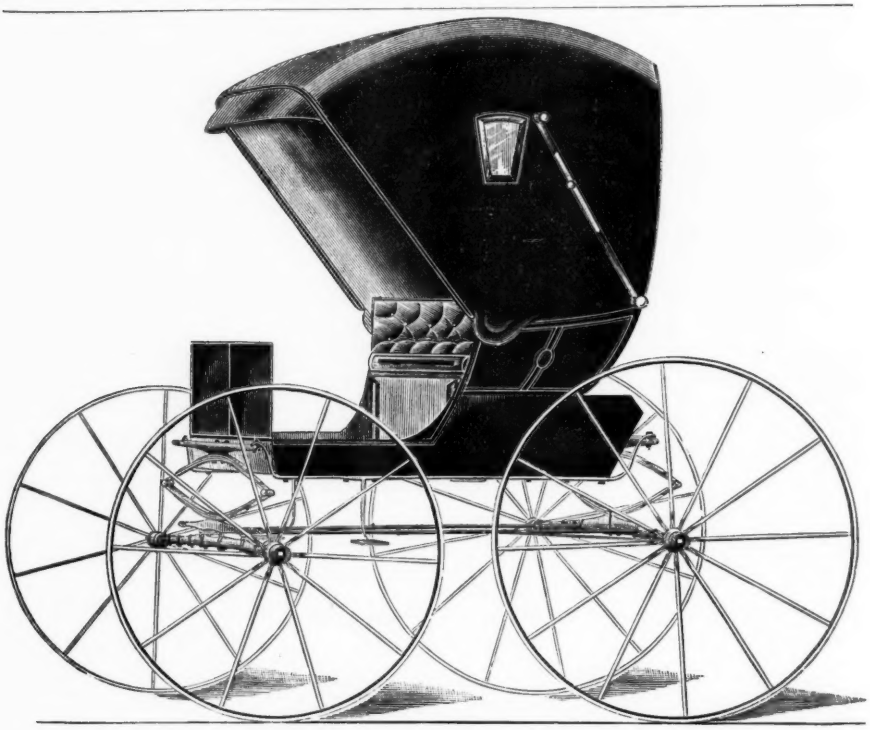

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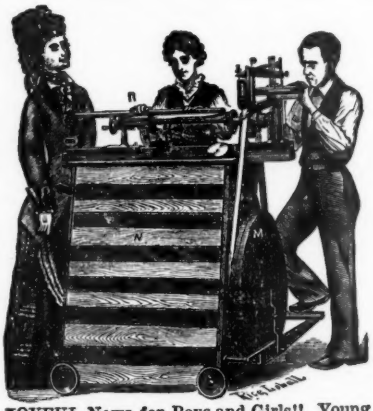

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Fat	5.49
Sugar	41.67
Starch (Gelatinized)	25.77
	100.00

It is well established that the best diet in cases of CHOLERA INFANTUM is EGG ALBUMEN and sugar combined with a light cereal in the proportions above given.

This Food will be found more efficacious than any preparation of its kind.

It is guaranteed to be absolutely free from Drugs or Medicines.

It is NOT treated with Pepsine, Pancreatine, or any digestive ferments.

It is the MOST ECONOMICAL food on the market, on account of its concentrated nutrition.

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Samples free to Physicians.

ROBINSON'S
HYPOPHOSPHITES.
NUTRITIVE, TONIC, ALTERATIVE.

Each fluidounce contains:

Hypophosphites	Soda	2 grains.
"	Lime	1½ "
"	Iron	1½ "
"	Quinine	¼ "
"	Manganese	1½ "
"	Strychnine	1-16 "

Dose: One to four fluidrachms. ***PINT BOTTLES, $1.00.***

Representing as it does, the ingredients of the original "CHURCHILL'S SYR. HYPOPHOSPHITES," combined with the excellent CONSTRUCTIVE TONICS and STIMULANTS, **Iron, Quinine, Strychnine, Manganese,**

Is recognized by Physicians as an excellent remedy in

PULMONARY WEAKNESS,
INCIPIENT CONSUMPTION,
SCROFULOUS TAINT,
GENERAL DEBILITY, ETC.

The various salts are in COMPLETE and PERMANENT solution. ACCURATE UNIFORMITY is secured by the utmost care in compounding this preparation.

EXTRACTS FROM A FEW OF THE LETTERS RECEIVED FROM PHYSICIANS.

Messrs. R. A. ROBINSON & Co., LOUISVILLE, KY., March 29th, 1886.

Gentlemen; I have been prescribing the *Syrup of Hypophosphites* prepared by your firm, with uniformly good results. Your *Syrup of Hypophosphites* presents a combination of constructive tonics and alteratives massed together in palatable form and in a beautiful solution, indicative of unsurpassed Pharmaceutical Art. I have used it in the debility of the old and the young, with nursing mothers, and with those of strumous and tubercular tendencies, with most gratifying results. Yours very respectfully,

(Signed) COLEMAN ROGERS, M. D.

Messrs. R. A. ROBINSON & Co. LOUISVILLE, KY., April 1, 1886.

Gentlemen: For a number of months I have been prescribing your *Syrup of Hypophosphites.* In my prescriptions I have specified "R. A. Robinson & Co.," because of my confidence in the integrity of the manufacturers. After having observed the effects of the above preparation on a large number of patients, I am convinced that no similar mixture, now upon the market, is so elegant and palatable, and at the same time so invariable and accurate in composition.

Respectfully your obedient servant,

(Signed) JAMES M. HOLLOWAY, M. D., No. 728 4th Ave.

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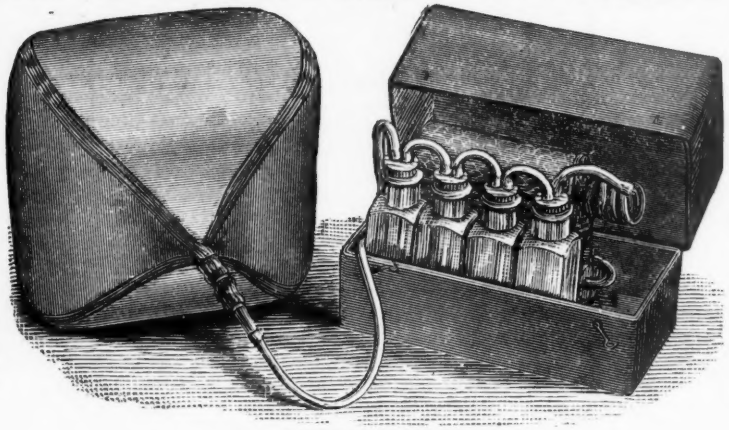

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